

GenCore version 5.1.1.8  
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OM nucleic - nucleic search, using sw model

Run on: May 21, 2006, 22:34:29 ; Search time 1421 Seconds  
(without alignments)  
12207.568 Million cell updates/sec

Title: US-10-719-024-1  
Perfect score: 2488  
Sequence: 1 aaaaatgcagcgcgaataa.....aaataaactgcatacaaa 2488

Scoring table: IDENTITY NUC  
Gapop 10\_0 , Gapext 1.0

Searched: 5244920 seqs, 3486124231 residues  
Total number of hits satisfying chosen parameters: 104899840

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : N\_Geneseq\_8.\*  
1: Geneseqn1980s.\*  
2: Geneseqn1990s.\*  
3: Geneseqn2000s.\*  
4: Geneseqn2001as.\*  
5: Geneseqn2001bs.\*  
6: Geneseqn2002as.\*  
7: Geneseqn2002bs.\*  
8: Geneseqn2003as.\*  
9: Geneseqn2003bs.\*  
10: Geneseqn2003cs.\*  
11: Geneseqn2003ds.\*  
12: Geneseqn2004as.\*  
13: Geneseqn2004bs.\*  
14: Geneseqn2005s.\*  
15: Geneseqn2006s.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2488	100.0	2488	14	ADY61074 D melanog
2	2488	100.0	2488	14	ABE53800 Drosophil
C 3	2488	100.0	4483	4	ABL07558 Drosophil
C 4	2488	100.0	18737	4	ABL07492 Drosophil
C 5	2488	100.0	18737	4	ABL07530 Drosophil
6	2483	99.8	2483	4	ABL07559 Drosophil
7	2238.2	90.0	2304	2	AAQ14176 Clone pXR
8	2238.2	90.0	2304	2	AAQ55374 pXR2C8 DN
9	2238.2	90.0	2304	2	AAT76787 Insect XR
10	2238.2	90.0	2304	2	AAT89959 D. melano
11	825	33.2	825	6	ABE68157 Drosophil
12	825	33.2	825	6	ABT08312 Ecr-based
13	799	32.1	799	8	ACC00562 Drosophila
14	799	32.1	799	9	ACC71950 D. melano
15	488.6	19.6	1536	4	AAF32133 L. cuprina
16	488.6	19.6	1596	4	AAF32132 L. cuprina
17	488.6	19.6	2453	4	AAF32131 L. cuprina
18	454.4	18.3	1377	2	AAX90667 L. cuprin

19	243	9.8	4375	4	AAS15657	Aas15657 Spruce bu
20	243	9.8	4375	6	ABS70120	AbS70120 Spruce bu
21	239.2	9.6	1837	3	AAA10313	Aaa10313 European
22	232.6	9.3	1344	8	ACA05056	Aca05056 Flea ultr
C 23	232.6	9.3	1344	8	ACA05057	Aca05057 Flea ultr
C 24	232.6	9.3	1344	13	ADU48280	Adu48280 Ctenoceph
25	232.6	9.3	1344	13	ADU48278	Adu48278 Ctenoceph
26	232.6	9.3	1422	8	ACA05060	Aca05060 Flea ultr
C 27	232.6	9.3	1422	8	ACA05061	Aca05061 Flea ultr
28	232.6	9.3	1422	13	ADU48284	Adu48284 Ctenoceph
C 29	232.6	9.3	1422	13	ADU48286	Adu48286 Ctenoceph
C 30	232.6	9.3	1749	8	ACA05055	Aca05055 Flea ultr
31	232.6	9.3	1749	8	ACA05054	Aca05054 Flea ultr
32	232.6	9.3	1749	13	ADU48275	Adu48275 Ctenoceph
C 33	232.6	9.3	1749	13	ADU48277	Adu48277 Ctenoceph
C 34	232.6	9.3	1975	8	ACA05059	Aca05059 Flea ultr
35	232.6	9.3	1975	8	ACA05058	Aca05058 Flea ultr
36	232.6	9.3	1975	13	ADU48281	Adu48281 Ctenoceph
C 37	232.6	9.3	1975	13	ADU48283	Adu48283 Ctenoceph
38	222.2	8.9	1398	6	ABA95998	Aba95998 Heliothis
39	219.6	8.8	2951	8	AD47611	Ad47611 Heliothis
C 40	218	8.8	1421	8	ACA05052	Aca05052 Flea ultr
41	218	8.8	1421	8	ACA05051	Aca05051 Flea ultr
C 42	218	8.8	1421	13	ADU48273	Adu48273 Ctenoceph
43	218	8.8	1421	13	ADU48272	Adu48272 Ctenoceph
44	216.4	8.7	943	8	ACA05066	Aca05066 Flea ultr
C 45	216.4	8.7	943	8	ACA05067	Aca05067 Flea ultr

ALIGNMENTS

RESULT 1

ADY61074

ID ADY61074 standard; cDNA; 2488 BP.

AC ADY61074;

DT 19-MAY-2005 (first entry)

DE D melanogaster ultraspiracle (USP) wild-type cDNA SeqID1.

KW protein engineering; hormone; pesticide; pharmaceutical; plant pest;

XX gene; ss; ultraspiracle; USP.

XX Drosophila melanogaster.

XX Key Location/Qualifiers

FT CDS 371..1897

FT /\*tag= a

FT /product= "D melanogaster ultraspiracle (USP) wild-type

FT protein"

XX US2005054569-A1.

XX 10-MAR-2005.

XX 24-NOV-2003; 2003US-00719024.

XX 22-NOV-2002; 2002US-0428282P.

XX (JONE/) JONES G.

XX (JONE/) JONES D.

XX Jones G, Jones D;

XX WPI; 2005-221953/23.

XX P-PSDB; ADY61075.

XX New mutant hormone receptor nucleic acids useful in the fields of drug  
discovery and pest control, in particular for identifying chemical  
compounds in activating or blocking particular hormone-dependent pathways  
in various organisms.

XX Claim 1; SEQ ID NO 1; 35pp; English.

XX This invention relates to novel mutant nuclear hormone receptors and the  
CC DNA sequences which encode them. The invention may be useful for the  
CC development of compounds with a pesticide activity acting as hormone  
CC receptor agonists or antagonists. The methods and compositions of the  
CC present invention are useful in the fields of drug discovery and pest  
CC control, in particular for providing biochemical tools and assays to  
CC identify ligands of nuclear hormone receptors and identifying a pest  
CC control agent. The present sequence is that of the D melanogaster  
CC ultrastructural (usp) wild-type cDNA which was used during the development  
CC of the novel mutant nuclear hormone receptors of the invention.

XX SQ Sequence 2488 BP; 669 A; 669 C; 648 G; 502 T; 0 U; 0 Other;

Query Match 100.0%; Score 2488; DB 14; Length 2488;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2488; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AAAAAATGCGAGCGGAAAAAGGTATTTTATTCATTAGTCAGAAAGTCGGCATCTTTGT 60  
Db 1 AAAAAATGCGAGCGGAAAAAGGTATTTTATTCATTAGTCAGAAAGTCGGCATCTTTGT 60

Qy 61 TTGTTGGTAAAGCGCAATTTGTTGGAGGCGAGCAATAAAGTCGCTGCTCCATCGGC 120  
Db 61 TTGTTGGTAAAGCGCAATTTGTTGGAGGCGAGCAATAAAGTCGCTGCTCCATCGGC 120

Qy 121 TCAAGATTATGTAAATGCGAACAACGCCACCCCAACCAACGAAACTGCAACTGCTCCACT 180  
Db 121 TCAAGATTATGTAAATGCGAACAACGCCACCCCAACCAACGAAACTGCAACTGCTCCACT 180

Qy 181 TGGCCCAACGCAACCAATAGCGAGCGGACGGACGACGCTGGCAAGTGAACCCCA 240  
Db 181 TGGCCCAACGCAACCAATAGCGAGCGGACGGACGACGCTGGCAAGTGAACCCCA 240

Qy 241 ACAGAGCGCAAGCGAGCGCAAGACACACACATACACAGAGAGAACAGCAAGAG 300  
Db 241 ACAGAGCGCAAGCGAGCGCAAGACACACACATACACAGAGAGAACAGCAAGAG 300

Qy 301 AAACCGGTAGGCGGAGGAGCGCTGCCCCCAAGTTCTCCATATACCCAGCACCATCA 360  
Db 301 AAACCGGTAGGCGGAGGAGCGCTGCCCCCAAGTTCTCCATATACCCAGCACCATCA 360

Qy 361 CAAGCCCAAGGATGGAACAATCGGACCGACGACGCTGGTGGACGACCATCAAGGA 420  
Db 361 CAAGCCCAAGGATGGAACAATCGGACCGACGACGCTGGTGGACGACCATCAAGGA 420

Qy 421 GGAGGTCAAGCGGACATCTCGAGCTGAAACAGACCAACAGCAGCTTTTCGCCCA 480  
Db 421 GGAGGTCAAGCGGACATCTCGAGCTGAAACAGACCAACAGCAGCTTTTCGCCCA 480

Qy 481 GGCCGAGAGTCCCGTCCCTTCATGACGCGCATGTCCATGTGCTGCTGCTGCTGCTC 540  
Db 481 GGCCGAGAGTCCCGTCCCTTCATGACGCGCATGTCCATGTGCTGCTGCTGCTGCTC 540

Qy 541 CAACTCCGCGAGCTCAACAAACAGCGCTGGAGTGCCTCAATGCGGCGAGCGCCCA 600  
Db 541 CAACTCCGCGAGCTCAACAAACAGCGCTGGAGTGCCTCAATGCGGCGAGCGCCCA 600

Qy 601 TTCGGCTGAGGCTCTGCGCGCGTGCAGTCCAGCAGCATATCCGCTTAACCATCCGCT 660  
Db 601 TTCGGCTGAGGCTCTGCGCGCGTGCAGTCCAGCAGCATATCCGCTTAACCATCCGCT 660

Qy 661 GAGCGGCAAGCAACCTCTGCTCTATTGCGGGATCGGGCCAGTGGCAAGCACTAGGG 720  
Db 661 GAGCGGCAAGCAACCTCTGCTCTATTGCGGGATCGGGCCAGTGGCAAGCACTAGGG 720

Qy 721 CGTGTACAGCTGTGAGGCTGCAAGGCTCTTTTAAACGCAAGTGGCGAGGATCTCAC 780  
Db 721 CGTGTACAGCTGTGAGGCTGCAAGGCTCTTTTAAACGCAAGTGGCGAGGATCTCAC 780

Qy 781 ATACGCTTGACGGAGAACCGCAACTGTCATCATAGACAGCGGACGAGGACCGTGCCA 840

Db 781 ATACGCTTGACGGAGAACCGCAACTGTCATCATAGACAGCGGACAGGAAACCGTGCCA 840

Qy 841 GTACTCCGCTACAGAGTGCTTAACCTCGGCGATGAAGCGGAGCGGTCCAGGAGGA 900  
Db 841 GTACTCCGCTACAGAGTGCTTAACCTCGGCGATGAAGCGGAGCGGTCCAGGAGGA 900

Qy 901 GCGTCAACGCGCGCGCAATGCGCGGTAGGCTCAGCGCCAGCGGAGCGGCGGCTAG 960  
Db 901 GCGTCAACGCGCGCGCAATGCGCGGTAGGCTCAGCGCCAGCGGAGCGGCGGCTAG 960

Qy 961 CGGTCCAGGTTCCGTTAGCGGATCCAGCTCTCAAGGCGGAGGAGGAGCGGCGGTTTC 1020  
Db 961 CGGTCCAGGTTCCGTTAGCGGATCCAGCTCTCAAGGCGGAGGAGGAGCGGCGGTTTC 1020

Qy 1021 TGGCGGAATGGGACGGGCAACGGTTCTGATGATCTTCAATGACCAATAGCTGTCCAGGA 1080  
Db 1021 TGGCGGAATGGGACGGGCAACGGTTCTGATGATCTTCAATGACCAATAGCTGTCCAGGA 1080

Qy 1081 TTTCTCGATCGAGCGCATCATAGAGCGGAGCGAGCGGAGACCCCAATGCGGCGATCG 1140  
Db 1081 TTTCTCGATCGAGCGCATCATAGAGCGGAGCGAGCGGAGACCCCAATGCGGCGATCG 1140

Qy 1141 TGCACTGAGCTTCGTCGCGTTCCTATTTCCACAGTCCAGCGCGGACTCAAGGGTGC 1200  
Db 1141 TGCACTGAGCTTCGTCGCGTTCCTATTTCCACAGTCCAGCGCGGACTCAAGGGTGC 1200

Qy 1201 CGTGTGCGGCTTGTCGCAAGTGTCAACAAACAGCTCTTCCAGATGTCGGAATACGGCG 1260  
Db 1201 CGTGTGCGGCTTGTCGCAAGTGTCAACAAACAGCTCTTCCAGATGTCGGAATACGGCG 1260

Qy 1261 CATGATCCGCGCATTTTCCAGGTCGCGTGGAGCAGCAGGTGATTTCTGCTGAAGCGCG 1320  
Db 1261 CATGATCCGCGCATTTTCCAGGTCGCGTGGAGCAGCAGGTGATTTCTGCTGAAGCGCG 1320

Qy 1321 TTGATCGAGTGTCTCATTTGCGAAGCTGTGTGTCGAGCATCTTTGCTGAGTGAAG 1380  
Db 1321 TTGATCGAGTGTCTCATTTGCGAAGCTGTGTGTCGAGCATCTTTGCTGAGTGAAG 1380

Qy 1381 CGGTGCGCGCGCGGCGGTGAGCTAGGCGCAGATGGCTCTTTCAGCGCAGCATCAAC 1440  
Db 1381 CGGTGCGCGCGCGGCGGTGAGCTAGGCGCAGATGGCTCTTTCAGCGCAGCATCAAC 1440

Qy 1441 GGGCTTCAGCGCCAGCAGCTGTTTCTCAACAGAGCTTCTCGTACCATCGCAACAGTGC 1500  
Db 1441 GGGCTTCAGCGCCAGCAGCTGTTTCTCAACAGAGCTTCTCGTACCATCGCAACAGTGC 1500

Qy 1501 GATCAAGCGCGGTGTGTGAGCATCTTTCGACCGCATATTTGTCGAGCTGAGTGAAGAT 1560  
Db 1501 GATCAAGCGCGGTGTGTGAGCATCTTTCGACCGCATATTTGTCGAGCTGAGTGAAGAT 1560

Qy 1561 GAAGGGCTGAATCTTCGACCGAGCGGCTGCTGCTTGAAGGCGCATCTACTGTACAA 1620  
Db 1561 GAAGGGCTGAATCTTCGACCGAGCGGCTGCTGCTTGAAGGCGCATCTACTGTACAA 1620

Qy 1621 CCCGCAATACGCGGATCAAGAGCGGCGGAGATCGAGATGTGCCCGGAGAGGTGTA 1680  
Db 1621 CCCGCAATACGCGGATCAAGAGCGGCGGAGATCGAGATGTGCCCGGAGAGGTGTA 1680

Qy 1681 CGCTTTCGAGCAGGACATGCGCGCTGGAACATTCGCGGCGAGCATGAGACGCTTTCGCA 1740  
Db 1681 CGCTTTCGAGCAGGACATGCGCGCTGGAACATTCGCGGCGAGCATGAGACGCTTTCGCA 1740

Qy 1741 ACTGCTGCGGTCTGCGCGCTTTCGATCCATGAGCTGAGTGCAGGATCACTGTT 1800  
Db 1741 ACTGCTGCGGTCTGCGCGCTTTCGATCCATGAGCTGAGTGCAGGATCACTGTT 1800

Qy 1801 CCTCTTCGCAATACAGCGACCGGCGCTCGAGGAGCTCTTTCTTCGAGCAGCTGAGGCG 1860  
Db 1801 CCTCTTCGCAATACAGCGACCGGCGCTCGAGGAGCTCTTTCTTCGAGCAGCTGAGGCG 1860

Qy 1861 GCGCGCGCAACCGGCGCTGCGGATGAACCTGAGGTAGGCTCCGATCTTAAAGTCTCCGC 1920

Db 1861 GCCCGCCGCCACCGCGCTGCGCATGAACCTGGAGTAGGGTCCGACTCTAAAGTCTCCCC 1920  
Qy 1921 CGTTCTCCATCCGAAAAATGTTTCATTGTGATTCGCGTTGTTGTCATTTCTCTCTCTAT 1980  
Db 1921 CGTTCTCCATCCGAAAAATGTTTCATTGTGATTCGCGTTGTTGTCATTTCTCTCTAT 1980  
Qy 1981 CCCTTATACCTACAAAAGCCCTTAATATTACGCAAAATGTGTATGTAATTTGTTATTT 2040  
Db 1981 CCCTTATACCTACAAAAGCCCTTAATATTACGCAAAATGTGTATGTAATTTGTTATTT 2040  
Qy 2041 TTTTATTTATACCTATATATTATTATTATTATTATGATATGAAAAATGTTTTCCTTAAGATCA 2100  
Db 2041 TTTTATTTATACCTATATATTATTATTATTATTATTATGATATGAAAAATGTTTTCCTTAAGATCA 2100  
Qy 2101 AGATTAGCTCTCTCGAGCTTTATGTCCAGTAAACGAAAAACAAAACAAATCCAAACTT 2160  
Db 2101 AGATTAGCTCTCTCGAGCTTTATGTCCAGTAAACGAAAAACAAAACAAATCCAAACTT 2160  
Qy 2161 GAAAGAACACAAAACACGAGAGAAATGACACAAAGTAAAGTAAAGTTAA 2220  
Db 2161 GAAAGAACACAAAACACGAGAGAAATGACACAAAGTAAAGTAAAGTTAA 2220  
Qy 2221 ACTAAGCTTAAAGCTTAAAGTATTAATAAATTAACGCTTAAATTAATGATATGAT 2280  
Db 2221 ACTAAGCTTAAAGCTTAAAGTATTAATAAATTAACGCTTAAATTAATGATATGAT 2280  
Qy 2281 CTACAGACGTATGTAACATACAAATTCAGCATTAATATATATGTCAGCGGCGCATATC 2340  
Db 2281 CTACAGACGTATGTAACATACAAATTCAGCATTAATATATATGTCAGCGGCGCATATC 2340  
Qy 2341 TCGGTGTCGCGCCCGTCTTAATCAATTTGTAATTTTAAACATAAAATTTACCCAAA 2400  
Db 2341 TCGGTGTCGCGCCCGTCTTAATCAATTTGTAATTTTAAACATAAAATTTACCCAAA 2400  
Qy 2401 AGTTTATCAATTTAGTTCGAGATACAAAATCACCGACGAAACCAACAAATATATCTA 2460  
Db 2401 AGTTTATCAATTTAGTTCGAGATACAAAATCACCGACGAAACCAACAAATATATCTA 2460  
Qy 2461 TGTATAAAAATATAACTTGCATAACAA 2488  
Db 2461 TGTATAAAAATATAACTTGCATAACAA 2488

RESULT 2

AEBS3800  
ID AEBS3800 standard; cDNA; 2488 BP.  
XX AEBS3800;  
AC AEBS3800;  
DT 06-OCT-2005 (first entry)  
XX Drosophila nuclear receptor cDNA #14.  
XX Insecticide; pesticide; toxin; nuclear receptor; gene; ss.  
XX Drosophila melanogaster.  
XX WO2005069859-A2.  
XX 04-AUG-2005.  
XX 13-JAN-2005; 2005WO-US001218.  
XX 13-JAN-2004; 2004US-0536337P.  
XX (UTAH ) UNIV UTAH RES FOUND.  
XX Thummel CS, King-Jones K, Horner M, Lam G;  
XX WPI; 2005-555376/56.  
XX DR P-PSDB; AEBS3799.  
XX Composition useful for increasing effect of existing toxins to control

PT insects, and for inhibiting insect growth, comprises inhibitor of DHR96  
PT activity, and optionally pesticide.  
XX Disclosure; SEQ ID NO 28; 211pp; English.

CC The invention relates to a composition comprising an inhibitor of DHR96  
CC activity and optionally a pesticide. The invention also relates to an  
CC insect comprising a gene, where the gene comprises a non-naturally  
CC occurring mutation in the DHR96 gene, a method of enhancing the effect a  
CC pesticide has on an insect involving administering to the insect an  
CC inhibitor of DHR96 activity, a method of identifying an inhibitor of  
CC DHR96 activity involving testing compounds for inhibition activity of  
CC DHR96 and/or inhibition of xenobiotic activity and comparing the activity  
CC of these compounds to known inhibitors of DHR96, a method of producing a  
CC composition for inhibiting DHR96 activity involving admixing the  
CC inhibitor with a pesticide and a composition produced by the method. The  
CC composition and method are useful for enhancing the effect a pesticide  
CC has on an insect, for identifying an inhibitor of DHR96 activity, for  
CC identifying ligands for DHR96 and for producing a composition for  
CC inhibiting DHR96 activity. The composition is useful for regulating  
CC DHR96, preferably for inhibiting DHR96 gene expression or activity and  
CC for increasing the effect of existing toxins or pesticides e.g., DDT to  
CC control insects. The composition is useful for controlling insects e.g.,  
CC silverfish, Dragonflies, Stoneflies, beetles, fleas, ants, bees, wasps,  
CC termites etc. and decreases the resistance exhibited by the insects with  
CC respect to toxins or pesticides. This sequence represents cDNA encoding a  
CC Drosophila nuclear receptor used in the scope of the invention.

XX Sequence 2488 BP; 669 A; 669 C; 648 G; 502 T; 0 U; 0 Other;

Query Match 100.0%; Score 2488; DB 14; Length 2488;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2488; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AAAAAATGTCGACGCGAAAAAGGTATTTATTCATTAGTCAGAAAGTCTGGCATTTCTTGT 60  
Db 1 AAAAAATGTCGACGCGAAAAAGGTATTTATTCATTAGTCAGAAAGTCTGGCATTTCTTGT 60  
Qy 61 TTTTGTGTAATAAGCGCAATTGTTTGGAGGCGAGCGAATAAAGTCGCTGCCATCGCG 120  
Db 61 TTTTGTGTAATAAGCGCAATTGTTTGGAGGCGAGCGAATAAAGTCGCTGCCATCGCG 120  
Qy 121 TCAAGATTATGTAAATGCAGCAACGACCCCAACCAACGAACTGCAACCTGCTCCACT 180  
Db 121 TCAAGATTATGTAAATGCAGCAACGACCCCAACCAACGAACTGCAACCTGCTCCACT 180  
Qy 181 TGGCCCAACGACCAATAGCGGACGAGCGACACGCTGGCTTGGCAAGTGAACCCCA 240  
Db 181 TGGCCCAACGACCAATAGCGGACGAGCGACACGCTGGCTTGGCAAGTGAACCCCA 240  
Qy 241 ACAGAGGCGGAAAGCGAGCCCAAGACACACACATACACAGAGAACGAGCAAGAG 300  
Db 241 ACAGAGGCGGAAAGCGAGCCCAAGACACACACATACACAGAGAACGAGCAAGAG 300  
Qy 301 AAACCGGTAGGCGGAGGCGCTGCCCCCGAGTTCTTCCAAATATACCAGCACCATCA 360  
Db 301 AAACCGGTAGGCGGAGGCGCTGCCCCCGAGTTCTTCCAAATATACCAGCACCATCA 360  
Qy 361 CAAGCCAGGATGGACAACTGCGACGAGCGGCGCTTGGCTGAGCCATCAAGA 420  
Db 361 CAAGCCAGGATGGACAACTGCGACGAGCGGCGCTTGGCTGAGCCATCAAGA 420  
Qy 421 GGAGGTCAAGCGGACATCTCGAGCTGAAACGACGAGCAACACAGCTTTTCCGCCAA 480  
Db 421 GGAGGTCAAGCGGACATCTCGAGCTGAAACGACGAGCAACACAGCTTTTCCGCCAA 480  
Qy 481 GGCCGAGAGTCCCGTGGCTTTCATGCGGCGCATGTCTGCTCCAGCTGCTCCCGGCTC 540  
Db 481 GGCCGAGAGTCCCGTGGCTTTCATGCGGCGCATGTCTGCTCCAGCTGCTCCCGGCTC 540  
Qy 541 CAACCTCCGCCAGCTCCAAACAAACAGCGCTGGAGATGCCAAATGGCGGAGGCCCAA 600  
Db 541 CAACCTCCGCCAGCTCCAAACAAACAGCGCTGGAGATGCCAAATGGCGGAGGCCCAA 600

Qy	601	TTCCGGCTGGAGGCTCTCCGCGCGCTGCAGTCCAGCAGCAGTATCCGCTTAACCATCCGCT	660
Db	601		
Qy	661	TTCCGGCTGGAGGCTCTCCGCGCGCTGCAGTCCAGCAGCAGTATCCGCTTAACCATCCGCT	720
Db	661		
Qy	721	GAGCGGAGCAAGCACTCTGCTCTATTTCGGGGGATTCGGGCGAGTGGCAAGCACTACGG	780
Db	721	GAGCGGAGCAAGCACTCTGCTCTATTTCGGGGGATTCGGGCGAGTGGCAAGCACTACGG	
Qy	781	CGTGTCAGCTGTGAGGGCTGCAAGGGCTTCTTTAAACGCACAGTCGCGAAGCATCTCAC	840
Db	781		
Qy	841	ATACGCTTGCAGGAGAAACCGCAACTGCATCATAGACAAGCGGCAGAGGAACCGCTGCCA	900
Db	841	ATACGCTTGCAGGAGAAACCGCAACTGCATCATAGACAAGCGGCAGAGGAACCGCTGCCA	
Qy	901	GTACTGCGCTTACCAAGTGCCTTAACCTGCGGATGAAGCGCGAAGCGGTCAGAGGA	960
Db	901	GTACTGCGCTTACCAAGTGCCTTAACCTGCGGATGAAGCGCGAAGCGGTCAGAGGA	
Qy	961	GCCTCAACGGCGCGCCGCAATGCGGCGGTAGGCTCAGCGCCAGCGGAGCGCGAGTAG	1020
Db	961	GCCTCAACGGCGCGCGCCGCAATGCGGCGGTAGGCTCAGCGCCAGCGGAGCGCGAGTAG	
Qy	1021	CGGTCACAGTTCCGTAGCGGATCCAGCTCTCAAGCGGAGGAGGAGCGCGCTTTC	1080
Db	1021	CGGTCACAGTTCCGTAGCGGATCCAGCTCTCAAGCGGAGGAGGAGCGCGCTTTC	
Qy	1081	TGCGCGAATGGGCAAGCGGTTCTGATGATTCATCAACCAATAGCGTGTCCAGGGA	1140
Db	1081	TGCGCGAATGGGCAAGCGGTTCTGATGATTCATCAACCAATAGCGTGTCCAGGGA	
Qy	1141	TTTCTCATTCGAGCGCATATAGAGGCGGACGACGCGGAGCCCAATGCGCGCATCG	1200
Db	1141	TTTCTCATTCGAGCGCATATAGAGGCGGACGACGCGGAGCCCAATGCGCGCATCG	
Qy	1201	TGCACTGACGTTCTTCGCGGTTGGTCCCTATTCCACAGTCCAGCGGACATCAAGGGTGC	1260
Db	1201	TGCACTGACGTTCTTCGCGGTTGGTCCCTATTCCACAGTCCAGCGGACATCAAGGGTGC	
Qy	1261	CGTGTCCGCGCTGTGCCAAGTGGTCAACAAACAGCTCTTCAGATGGTTCGAATACGCGG	1320
Db	1261	CGTGTCCGCGCTGTGCCAAGTGGTCAACAAACAGCTCTTCAGATGGTTCGAATACGCGG	
Qy	1321	CATGATGCGCACTTTGGCCAGGTGCGCTGGACGACAGGTGATTCGTGAAAGCGCG	1380
Db	1321	CATGATGCGCACTTTGGCCAGGTGCGCTGGACGACAGGTGATTCGTGAAAGCGCG	
Qy	1381	TTTGATTCGAGTGTCTATTGCGAAGTGGCTGTGAGCATCGTTTCGTGATGACGG	1440
Db	1381	TTTGATTCGAGTGTCTATTGCGAAGTGGCTGTGAGCATCGTTTCGTGATGACGG	
Qy	1441	CGGTGCCGCGCGGGGCGGTGAGCTAGGCCACGATGGCTCTTTGAGCGGACGATCACC	1500
Db	1441	CGGTGCCGCGCGGGGCGGTGAGCTAGGCCACGATGGCTCTTTGAGCGGACGATCACC	
Qy	1501	GGGCTTCAGCCCCAGCAGCTGTTCTCAACACAGCTTTCGTACCATCGCAACAGTGC	1560
Db	1501	GGGCTTCAGCCCCAGCAGCTGTTCTCAACACAGCTTTCGTACCATCGCAACAGTGC	
Qy	1561	GATCAAGCCGGTGTGAGCCATCTTCGACCGCATATTGTCGGAGCTGAGTGTAAAGAT	1620
Db	1561	GATCAAGCCGGTGTGAGCCATCTTCGACCGCATATTGTCGGAGCTGAGTGTAAAGAT	
Qy	1621	GAAAGCGCTGAATCTCGACCGACGAGCTGCTCTGCTTGAAGGCCATCATCTGTACAA	1680
Db	1621	GAAAGCGCTGAATCTCGACCGACGAGCTGCTCTGCTTGAAGGCCATCATCTGTACAA	
Qy	1681	CCCGACATACCGGGATCAAGACCGCGGCGGAGATCGAGATGTCGCGAGAGGTGTA	1740
Db	1681	CCCGACATACCGGGATCAAGACCGCGGCGGAGATCGAGATGTCGCGAGAGGTGTA	

Qy	1681	CGCTTGCTGCGACGAGCACTGCCGCTCTGGAAACATCCGGGGCAGCATGGAACGCTTTGGCGCA	1741
Db	1681	CGCTTGCTGCGACGAGCACTGCCGCTCTGGAAACATCCGGGGCAGCATGGAACGCTTTGGCGCA	1740
Qy	1741	ACTGCTGCTGGGCTGCCCGCTTTGGATCGATCAGCTGAAGTGCCAGATCACCTGTT	1800
Db	1741	ACTGCTGCTGGGCTGCCCGCTTTGGATCGATCAGCTGAAGTGCCAGATCACCTGTT	1800
Qy	1801	CCTCTTCCGCATTAACAGACGACCGGCGCTGGAGGAGCTCTTCTCGAGCAGCTGGAGGC	1860
Db	1801	CCTCTTCCGCATTAACAGACGACCGGCGCTGGAGGAGCTCTTCTCGAGCAGCTGGAGGC	1860
Qy	1861	GCGCCGCCACCCGGGCTGCGGATGAAATCTGGAGTAGGGTCCGACCTCTAAAGTCTCCCC	1920
Db	1861	GCGCCGCCACCCGGGCTGCGGATGAAATCTGGAGTAGGGTCCGACCTCTAAAGTCTCCCC	1920
Qy	1921	GGTTCTCCATCCGAAATGTTTCATTTGTCATTTGCGTTTCTTTGTCATTTCTCCTCTCTAT	1980
Db	1921	GGTTCTCCATCCGAAATGTTTCATTTGTCATTTGCGTTTCTTTGTCATTTCTCCTCTCTAT	1980
Qy	1981	CCCTTATACCTTACAAAGGCCCTTAATATTAGCAGAAATGTGTATGTAATTTGTTATTTT	2040
Db	1981	CCCTTATACCTTACAAAGGCCCTTAATATTAGCAGAAATGTGTATGTAATTTGTTATTTT	2040
Qy	2041	TTTTTTTATTACCTTAATATTATTATTATGATATAGAAAATGTTTTTCCCTAAAGATGA	2100
Db	2041	TTTTTTTATTACCTTAATATTATTATTATGATATAGAAAATGTTTTTCCCTAAAGATGA	2100
Qy	2101	AGATTAGCTCTCGACGTTTATGTGCCAGTAAACGAAAAACAAACAAAATCCAAACTT	2160
Db	2101	AGATTAGCTCTCGACGTTTATGTGCCAGTAAACGAAAAACAAACAAAATCCAAACTT	2160
Qy	2161	GAAAGAAGAACAAAAACAGAACGAGAAAAATGSCACACAGCAAAAGTAAAAAGTTAA	2220
Db	2161	GAAAGAAGAACAAAAACAGAACGAGAAAAATGSCACACAGCAAAAGTAAAAAGTTAA	2220
Qy	2221	ACTAAAGCTAAACGAGTAAAGATATTAAAAATAACGGTTAAAAATTAATGCTAGTTATGAT	2280
Db	2221	ACTAAAGCTAAACGAGTAAAGATATTAAAAATAACGGTTAAAAATTAATGCTAGTTATGAT	2280
Qy	2281	CTACAGACGTATGTAAACATACAAATTCAGCATAAATATATATGTGACGAGGCGCATATC	2340
Db	2281	CTACAGACGTATGTAAACATACAAATTCAGCATAAATATATATGTGACGAGGCGCATATC	2340
Qy	2341	TGCGGCTGTCGCCCGCTTCTAAATCAATTTGTAATTTACTTTTTTAACATAAAATTTACCCCAA	2400
Db	2341	TGCGGCTGTCGCCCGCTTCTAAATCAATTTGTAATTTACTTTTTTAACATAAAATTTACCCCAA	2400
Qy	2401	ACGTTTATCAATTAGATGCGAGATACAAAAATCACCGACGAAACCAACAAAAATATATCTA	2460
Db	2401	ACGTTTATCAATTAGATGCGAGATACAAAAATCACCGACGAAACCAACAAAAATATATCTA	2460
Qy	2461	TGTATATAAAATATATAAACTGCTATAAACAA	2488
Db	2461	TGTATATAAAATATATAAACTGCTATAAACAA	2488
RESULT 3			
ABL07558/c			
ID	ABL07558	standard; cDNA; 4483 BP.	
XX	AC	ABL07558;	
XX	XX		
DT	26-MAR-2002	(first entry)	
DE	XX	Drosophila melanogaster expressed polynucleotide SEQ ID NO 17156.	
KW	XX	Drosophila; developmental biology; cell signalling; insecticide;	
KW	XX	pharmaceutical; gene; ss.	
OS	XX	Drosophila melanogaster.	
XX	PN	WO200171042-A2.	

XX 27-SEP-2001.  
XX 23-MAR-2001; 2001WO-US009231.  
XX 23-MAR-2000; 2000US-0191637P.  
XX 11-JUL-2000; 2000US-00614150.  
XX (PEKE ) PE CORP NY.  
XX Venter JC, Adams M, Li PWD, Myers EW;  
XX WPI; 2001-656860/75.  
XX P-PSDB; ABB63455.  
XX New isolated nucleic acid detection reagent for detecting 1000 or more  
XX genes from Drosophila and for elucidating cell signaling and cell-cell  
XX interactions.  
XX Claim 1; SEQ ID NO 17156; 21pp + Sequence Listing; English.  
XX The invention relates to an isolated nucleic acid detection reagent  
XX capable of detecting 1000 or more genes from Drosophila. The invention is  
XX useful in developmental biology and in elucidating cell signalling and  
XX cell-cell interactions in higher eukaryotes for the development of  
XX insecticides, therapeutics and pharmaceutical drugs. The invention  
XX discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA  
XX sequences (ABL01840-ABL16175) and the encoded proteins (ABB57737-  
XX ABB72072). The sequence data for this patent did not form part of the  
XX printed specification, but was obtained in electronic format directly  
XX from WIPO at ftp.wipo.int/pub/published\_pct\_sequences  
XX  
XX Sequence 4483 BP; 1136 A; 1098 C; 1065 G; 1184 T; 0 U; 0 Other;  
Query Match 100.0%; Score 2488; DB 4; Length 4483;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2488; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
XX 1 AAAAAATGTCGACGCGGAAAAAGGTATTTATTCTAGTCAGAAAGTCTGGCATTTCTTGT 60  
DB 3483 AAAAAATGTCGACGCGGAAAAAGGTATTTATTCTAGTCAGAAAGTCTGGCATTTCTTGT 3424  
XX 61 TTGTTGGTAAAAAGCGCAATGTTTGGAGCGAGCGAATAAAGTGCCTGCTCCATCGGC 120  
DB 3423 TTGTTGGTAAAAAGCGCAATGTTTGGAGCGAGCGAATAAAGTGCCTGCTCCATCGGC 3364  
XX 121 TCAAGATTATGTAATGCGACCAACGACCCCAACCAACGAAACTGCAACCTGCTCCACT 180  
DB 3363 TCAAGATTATGTAATGCGACCAACGACCCCAACCAACGAAACTGCAACCTGCTCCACT 3304  
XX 181 TGGCCCAACGACCAATAGCGACGACGACGACGACGACGACGACGACGACGACGACGAC 240  
DB 3303 TGGCCCAACGACCAATAGCGACGACGACGACGACGACGACGACGACGACGACGACGAC 3244  
XX 241 ACAGAGAGCGAAAGCGACCGCAAGACACACACATACACACAGAGAACGAGCAAGAG 300  
DB 3243 ACAGAGAGCGAAAGCGACCGCAAGACACACACATACACACAGAGAACGAGCAAGAG 3184  
XX 301 AAACCGGTAGGCGGAGGAGGCGCTGCCCCAGTTCCTCAATATACCGACACACATCA 360  
DB 3183 AAACCGGTAGGCGGAGGAGGCGCTGCCCCAGTTCCTCAATATACCGACACACATCA 3124  
XX 361 CAAGCCGAGGATGGAACACTGCGACGACGACGACGACGACGACGACGACGACGACGAC 420  
DB 3123 CAAGCCGAGGATGGAACACTGCGACGACGACGACGACGACGACGACGACGACGACGAC 3064  
XX 421 GGAGGTCAAGCCGGAACATCTGCGAGCTGAACGACGACGACGACGACGACGACGACGAC 480  
DB 3063 GGAGGTCAAGCCGGAACATCTGCGAGCTGAACGACGACGACGACGACGACGACGACGAC 3004  
XX 481 GSCCGAGAGTCCCGTCCCTTCATGACGCGCATGTCATGTCACATGTCGTCGCGCGGTC 540  
DB 3003 GSCCGAGAGTCCCGTCCCTTCATGACGCGCATGTCATGTCACATGTCGTCGCGCGGTC 2944

QY 541 CAACTCCGCGCAGCTCCAAACAACAACAGCGCTGGAGATGCCAAATGGCGCAGCGCCCAA 600  
DB 2943 CAACTCCGCGCAGCTCCAAACAACAACAACAGCGCTGGAGATGCCAAATGGCGCAGCGCCCAA 2884  
QY 601 TTCGGCTGGAGGCTCTGCGCGCGCTGCGAGTCAGCAGCAGAGTATCGCCTTAACCATCCGCT 660  
DB 2883 TTCGGCTGGAGGCTCTGCGCGCGCTGCGAGTCAGCAGCAGAGTATCGCCTTAACCATCCGCT 2824  
QY 661 GAGCGGAGCAAGCAGCCTCTGCTCTATTTTGGGGGATCGGGCAGTGGCAAGCAGCTACCG 720  
DB 2823 GAGCGGAGCAAGCAGCCTCTGCTCTATTTTGGGGGATCGGGCAGTGGCAAGCAGCTACCG 2764  
QY 721 CGTGTACAGCTGTGAGGGCTGCAAGGGCTTCTTTTAAACGACAGTCGCGCAAGGATCTCAC 780  
DB 2763 CGTGTACAGCTGTGAGGGCTGCAAGGGCTTCTTTTAAACGACAGTCGCGCAAGGATCTCAC 2704  
QY 781 ATACGCTTGCAGGAGAACCGCAACTGCAATCATAGCAAGCGCGAGAGAAACGCTTGCCA 840  
DB 2703 ATACGCTTGCAGGAGAACCGCAACTGCAATCATAGCAAGCGCGAGAGAAACGCTTGCCA 2644  
QY 841 GTACTGCCGCTACCAAGAGTGCCTTAACCTTGGCGCATGAAGCGGAGCGGTCAGGAGCA 900  
DB 2643 GTACTGCCGCTACCAAGAGTGCCTTAACCTTGGCGCATGAAGCGGAGCGGTCAGGAGCA 2584  
QY 901 CGCTCAACCGCGCGCGCCCAATGCGCGCGGTAGGCTCAAGCGCAGCGAGCGGCGCAGTAG 960  
DB 2583 CGCTCAACCGCGCGCGCCCAATGCGCGCGGTAGGCTCAAGCGCAGCGAGCGGCGCAGTAG 2524  
QY 961 CGGTCACAGTTCGTTAGGCGGATCAGCTCTCAAGCGGAGGAGGAGGCGGCGGTTTC 1020  
DB 2523 CGGTCACAGTTCGTTAGGCGGATCAGCTCTCAAGCGGAGGAGGAGGCGGCGGTTTC 2464  
QY 1021 TGGCGGAATGGCAGCGCAACGGTTCTGATGACTTTCATGACCAATAGCTGTCCAGGGA 1080  
DB 2463 TGGCGGAATGGCAGCGCAACGGTTCTGATGACTTTCATGACCAATAGCTGTCCAGGGA 2404  
QY 1081 TTTCTCGATCCAGCGCATCATAGAGCGCGAGCAGCGAGAGCCCAATGCGGCGATCG 1140  
DB 2403 TTTCTCGATCCAGCGCATCATAGAGCGCGAGCAGCGAGAGCCCAATGCGGCGATCG 2344  
QY 1141 TGCATGAGCTTCTGCGCGTGGTCCCTATTTCCAAGTCCAGCGGACTACAAGGGTGC 1200  
DB 2343 TGCATGAGCTTCTGCGCGTGGTCCCTATTTCCAAGTCCAGCGGACTACAAGGGTGC 2284  
QY 1201 CGTGTGCGGCGCTGCGCAAGTGGTCAAACAACAGCTCTTCCAGATGGTTCGATACGCG 1260  
DB 2283 CGTGTGCGGCGCTGCGCAAGTGGTCAAACAACAGCTCTTCCAGATGGTTCGATACGCG 2224  
QY 1261 CATGATGCGCACTTTGCGCCAGGTCGCTGGACGACAGGAGTGTCTGCTGAAAGCGCG 1320  
DB 2223 CATGATGCGCACTTTGCGCCAGGTCGCTGGACGACAGGAGTGTCTGCTGAAAGCGCG 2164  
QY 1321 TTGGATCGAGCTGTCTATTGCGAAGCTGGCTGGTGCAGCATCGTTTCCTGAGTGAACGG 1380  
DB 2163 TTGGATCGAGCTGTCTATTGCGAAGCTGGCTGGTGCAGCATCGTTTCCTGAGTGAACGG 2104  
QY 1381 CGGTGCGCGCGCGCGGCGGTGGACTAGGCGCAAGATGGCTCTTTGAGCGAGCATCAC 1440  
DB 2103 CGGTGCGCGCGCGGCGGCGGTGGACTAGGCGCAAGATGGCTCTTTGAGCGAGCATCAC 2044  
QY 1441 GGGCGCTTCAGCGCCCAAGCAGCTGTTCTCTCAACAGAGCTTCTCGTACCATCGCAACAGTGC 1500  
DB 2043 GGGCGCTTCAGCGCCCAAGCAGCTGTTCTCTCAACAGAGCTTCTCGTACCATCGCAACAGTGC 1984  
QY 1501 GATCAAGCGCGGTGTGTCAGCCATTTTCGACCGCATATTTGTCGAGCTGAGTGTAAAGAT 1560  
DB 1983 GATCAAGCGCGGTGTGTCAGCCATTTTCGACCGCATATTTGTCGAGCTGAGTGTAAAGAT 1924  
QY 1561 GAAGCGGTGATCTTCGACCGCAGCGAGCTGTCTGCTTGAAGGCGCATCATCTGTACAA 1620  
DB 1923 GAAGCGGTGATCTTCGACCGCAGCGAGCTGTCTGCTTGAAGGCGCATCATCTGTACAA 1864





QY 481 GGCCGAGAGTCCCGTGCCTTCATGACGAGCCATGTCTCCATGTTCCACGTGTCACGTGTCGCGGCTC 540  
DB 16309 GGCCGAGAGTCCCGTGCCTTCATGACGAGCCATGTCTCCATGTTCCACGTGTCACGTGTCGCGGCTC 16250  
QY 541 CAACTCCGCGAGCTCAACAAACAAACAGCGCTGAGATGCCAAATGCGCGAGCGGCCAA 600  
DB 16249 CAACTCCGCGAGCTCAACAAACAAACAGCGCTGAGATGCCAAATGCGCGAGCGGCCAA 16190  
QY 601 TTCGGCTGAGGCTCTGCGCGCGCTCAGTCCAGACGAGTATCCGCTCAACCATCCGT 660  
DB 16189 TTCGGCTGAGGCTCTGCGCGCGCTCAGTCCAGACGAGTATCCGCTCAACCATCCGT 16130  
QY 661 GAGCGGAGAGCACTCTGCTCTATTTGCGGGGATTCGGGCGAGTGGCAAGCACTACCG 720  
DB 16129 GAGCGGAGAGCACTCTGCTCTATTTGCGGGGATTCGGGCGAGTGGCAAGCACTACCG 16070  
QY 721 CGGTACAGCTGTGAGGCTGCAGAGGCTTCTTTAAACGACAGTGGCGAGATCTAC 780  
DB 16069 CGGTACAGCTGTGAGGCTGCAGAGGCTTCTTTAAACGACAGTGGCGAGATCTAC 16010  
QY 781 ATACGCTTCGAGGAGAAACCGAACTGATCATAGACAAAGCGGACAGGAAACCGCTGCCA 840  
DB 16009 ATACGCTTCGAGGAGAAACCGAACTGATCATAGACAAAGCGGACAGGAAACCGCTGCCA 15950  
QY 841 GTACTGCCCTACACAGAGTGCCTAACCTCGGCGATGAAGCGGACAGCGGTCCAGGAGA 900  
DB 15949 GTACTGCCCTACACAGAGTGCCTAACCTCGGCGATGAAGCGGACAGCGGTCCAGGAGA 15890  
QY 901 GGTCTAACCGCGCGCCGCAATGCGCGGGTAGGCTCAGCGGAGGAGGCGGCTTTC 960  
DB 15889 GGTCTAACCGCGCGCCGCAATGCGCGGGTAGGCTCAGCGGAGGAGGCGGCTTTC 15830  
QY 961 CGGTCCAGCTTCGGTAGGCGGATCCAGCTCTCAAGCGGAGGAGGAGGCGGCTTTC 1020  
DB 15829 CGGTCCAGCTTCGGTAGGCGGATCCAGCTCTCAAGCGGAGGAGGAGGCGGCTTTC 15770  
QY 1021 TGGCGGAATGGGCGAGCGGCAACGGTTCGTGATGACTTCATGAACCAATAGCGGTCCAGGGA 1080  
DB 15769 TGGCGGAATGGGCGAGCGGCAACGGTTCGTGATGACTTCATGAACCAATAGCGGTCCAGGGA 15710  
QY 1081 TTTCTCGATCGAGCGCATATAGAGCCGAGACGAGCGGAGAGCCCAATGCGGCGATCG 1140  
DB 15709 TTTCTCGATCGAGCGCATATAGAGCCGAGACGAGCGGAGAGCCCAATGCGGCGATCG 15650  
QY 1141 TGCACCTGAGCTTCTCGCGGTTGGTCCCTATTTCCAGTCCAGCGCGGACTACAAGGCTGC 1200  
DB 15649 TGCACCTGAGCTTCTCGCGGTTGGTCCCTATTTCCAGTCCAGCGCGGACTACAAGGCTGC 15590  
QY 1201 CGTGTCCGCGCTGTGCCAAGTGGTCAACAAACAGCTCTTCCAGATGGTCCGAATACGCGGG 1260  
DB 15589 CGTGTCCGCGCTGTGCCAAGTGGTCAACAAACAGCTCTTCCAGATGGTCCGAATACGCGGG 15530  
QY 1261 CATGATGCGCGCATTTGCGCGAGTGCCTGAGACGACAGGTGATTTCTGCTGAAAGCGCG 1320  
DB 15529 CATGATGCGCGCATTTGCGCGAGTGCCTGAGACGACAGGTGATTTCTGCTGAAAGCGCG 15470  
QY 1321 TTGGATCGAGCTGCTCATTTGCGAAGCTGCGCTGCTGAGCATCGTTTCTGCTGAGTACGG 1380  
DB 15469 TTGGATCGAGCTGCTCATTTGCGAAGCTGCGCTGCTGAGCATCGTTTCTGCTGAGTACGG 15410  
QY 1381 CGGTGCGCGCGCGGCGGTGGACTAGGCCACAGATGCTCTTTGAGCGGACGATCAC 1440  
DB 15409 CGGTGCGCGCGCGGCGGTGGACTAGGCCACAGATGCTCTTTGAGCGGACGATCAC 15350  
QY 1441 GGGCCCTTACGCCCGCAGCAGCTGTTCCTCAACAGAGCTTCTCGTACCATCGCAACAGTGC 1500  
DB 15349 GGGCCCTTACGCCCGCAGCAGCTGTTCCTCAACAGAGCTTCTCGTACCATCGCAACAGTGC 15290  
QY 1501 GATCAAGCGCGTGTGTACGCCATCTTCAGACGCGATATTTGTGCGAGCTGAGTGTAAAGAT 1560  
DB 15289 GATCAAGCGCGTGTGTACGCCATCTTCAGACGCGATATTTGTGCGAGCTGAGTGTAAAGAT 15230

QY 1561 GAAGCGGCTGAATCTCGAACCGAGCGAGCTGTCTCTGTTGAAGGCCATCATACTGTACAA 1620  
DB 15229 GAAGCGGCTGAATCTCGAACCGAGCGAGCTGTCTCTGTTGAAGGCCATCATACTGTACAA 15170  
QY 1621 CCAGGACATACCGGGGATCAAGACCGCGGCGAGATCGAGATGTGCGCGAGAGGTGA 1680  
DB 15169 CCAGGACATACCGGGGATCAAGACCGCGGCGAGATCGAGATGTGCGCGAGAGGTGA 15110  
QY 1681 CGCTTTCGCTGAGACGAGCACTCGCGCTGGAAACATCCGGGCGAGATGAGCGCTTTGCGCA 1740  
DB 15109 CGCTTTCGCTGAGACGAGCACTCGCGCTGGAAACATCCGGGCGAGATGAGCGCTTTGCGCA 15050  
QY 1741 ACTGTGCTGCTGTCTGCGCGCTTTGCGATCGATCAGCTGGAAGTGCAGGATCACTGTT 1800  
DB 15049 ACTGTGCTGCTGTCTGCGCGCTTTGCGATCGATCAGCTGGAAGTGCAGGATCACTGTT 14990  
QY 1801 CCTCTTCGCGCATTACAGGAGCGCGCTGAGGAGCTCTTTCTCGAGCAGCTGGAGGC 1860  
DB 14989 CCTCTTCGCGCATTACAGGAGCGCGCTGAGGAGCTCTTTCTCGAGCAGCTGGAGGC 14930  
QY 1861 GCGCGCGCCACCGCGCTGGCGATGAACTGAGTAGGCTCCGACTCTTAAAGTCTCCCC 1920  
DB 14929 GCGCGCGCCACCGCGCTGGCGATGAACTGAGTAGGCTCCGACTCTTAAAGTCTCCCC 14870  
QY 1921 CGTCTCCATCCGAAAAATGTTTCATTGTGATTCGCTTTGTTTGCATTTCTCTCTAT 1980  
DB 14869 CGTCTCCATCCGAAAAATGTTTCATTGTGATTCGCTTTGTTTGCATTTCTCTCTAT 14810  
QY 1981 CCTTATACCTTACAAAAAGCCCCCTAATATTAACGAAATGTGTATGTATTTTATTT 2040  
DB 14809 CCTTATACCTTACAAAAAGCCCCCTAATATTAACGAAATGTGTATGTATTTTATTT 14750  
QY 2041 TTTTATTTTATACCTAATATTTATTTATTTATGATATGAAATGTTTTCTTAAAGTCA 2100  
DB 14749 TTTTATTTTATACCTAATATTTATTTATTTATGATATGAAATGTTTTCTTAAAGTCA 14690  
QY 2101 AGATTAGCTCTCTGACGTTTATGTCCAGTAAACAAAAACAAAAATCCAAAACTT 2160  
DB 14689 AGATTAGCTCTCTGACGTTTATGTCCAGTAAACAAAAACAAAAATCCAAAACTT 14630  
QY 2161 GAAAGAAACAAAAACAGACGAGAAATGACACAAGCAAGTAAAGTAAAAAGTTAA 2220  
DB 14629 GAAAGAAACAAAAACAGACGAGAAATGACACAAGCAAGTAAAGTAAAAAGTTAA 14570  
QY 2221 ACTAAGCTTAAACGAGTAAAGATTTAAATAACCGTTTAAATTAATGATAGTTATGAT 2280  
DB 14569 ACTAAGCTTAAACGAGTAAAGATTTAAATAACCGTTTAAATTAATGATAGTTATGAT 14510  
QY 2281 CTACAGAGTATGTAACCATACAAATTCAGCATAAATATATATGTGACGAGCGCATATC 2340  
DB 14509 CTACAGAGTATGTAACCATACAAATTCAGCATAAATATATATGTGACGAGCGCATATC 14450  
QY 2341 TCGGTGCTGCGCCCGTTCTAAATCAATGTGAATTTACTTTTTTAAACATAAATTTACCCAAA 2400  
DB 14449 TCGGTGCTGCGCCCGTTCTAAATCAATGTGAATTTACTTTTTTAAACATAAATTTACCCAAA 14390  
QY 2401 ACGTTTCAATTTAGTATGAGATCAAAATTCACGAGAAACCAACAAATATATCTA 2460  
DB 14389 ACGTTTCAATTTAGTATGAGATCAAAATTCACGAGAAACCAACAAATATATCTA 14330  
QY 2461 TGTATAAAAATATAAACTGCATACAA 2488  
DB 14329 TGTATAAAAATATAAACTGCATACAA 14302

## RESULT 5

ABL07530/c

ID ABL07530 standard; cDNA; 18737 BP.

XX ABL07530;

AC ABL07530;  
XX 26-MAR-2002 (first entry)  
XX





QY 1501 GATCAAGCGGTGTGTCTAGCCATCTTCGACCCGATATTTGTTCGAGCTGAGTGAAGAT 1560  
DB 15289 GATCAAGCGGTGTGTCTAGCCATCTTCGACCCGATATTTGTTCGAGCTGAGTGAAGAT 15230  
QY 1561 GAAGCGGCTGAATCTCGACGCGGAGCTGTCTCTGTGAGGCCATCATATCTGTACAA 1620  
DB 15229 GAAGCGGCTGAATCTCGACGCGGAGCTGTCTCTGTGAGGCCATCATATCTGTACAA 15170  
QY 1621 CCGGACATACGCGGATCAAGAGCGCGGCGGAGATCGAGATGTGCGGAGAAAGTGTA 1680  
DB 15169 CCGGACATACGCGGATCAAGAGCGCGGCGGAGATCGAGATGTGCGGAGAAAGTGTA 15110  
QY 1681 CGCTTCCTTGAGGAGACATCGCCCTTGGAACATCCGCGGCGAGATGAGACGCTTTGCGCA 1740  
DB 15109 CGCTTCCTTGAGGAGACATCGCCCTTGGAACATCCGCGGCGAGATGAGACGCTTTGCGCA 15050  
QY 1741 ACTGCTGTGCTGCTCCCGCTTTGCGATCGATCAGCCTGAAAGTGCAGGATCAACCTGTT 1800  
DB 15049 ACTGCTGTGCTGCTCCCGCTTTGCGATCGATCAGCCTGAAAGTGCAGGATCAACCTGTT 14990  
QY 1801 CCTTTCCGATTTACGAGCGACCGCGCTGAGGAGCTCTTTCTCGAGCAGCTGGAGGC 1860  
DB 14989 CCTTTCCGATTTACGAGCGACCGCGCTGAGGAGCTCTTTCTCGAGCAGCTGGAGGC 14930  
QY 1861 GCGCGCCGACCGCGCTGCGATGAACTGAGTAGGCTCCGACTCTAAAGTCTCCCC 1920  
DB 14929 GCGCGCCGACCGCGCTGCGATGAACTGAGTAGGCTCCGACTCTAAAGTCTCCCC 14870  
QY 1921 CGTTCTCCATCCGAAATGTTTCATTGTGATTTGGTTGTTGCAATTTCTCTCTAT 1980  
DB 14869 CGTTCTCCATCCGAAATGTTTCATTGTGATTTGGTTGTTGCAATTTCTCTCTAT 14810  
QY 1981 CCTTTATACCTACAAAGCCCTTAATTAATACGAAATGTTGATGTAATTTGTTATTT 2040  
DB 14809 CCTTTATACCTACAAAGCCCTTAATTAATACGAAATGTTGATGTAATTTGTTATTT 14750  
QY 2041 TTTTATTAACCTAATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2100  
DB 14749 TTTTATTAACCTAATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 14690  
QY 2101 AGATTAGCTCTCGACGTTTATGTCGAGTAATACGAAACAAACAAATCCAAACTT 2160  
DB 14689 AGATTAGCTCTCGACGTTTATGTCGAGTAATACGAAACAAACAAATCCAAACTT 14630  
QY 2161 GAAAGAGAACAAACACGAGGAAATGACACAGCAAGTAAAGTAAAGTTAA 2220  
DB 14629 GAAAGAGAACAAACACGAGGAAATGACACAGCAAGTAAAGTAAAGTTAA 14570  
QY 2221 ACTAAGCTAAACGAGTAAAGATATTAATAATACCGTTAAATTAATGATATGAT 2280  
DB 14569 ACTAAGCTAAACGAGTAAAGATATTAATAATACCGTTAAATTAATGATATGAT 14510  
QY 2281 CTACAGCGTATGTAACATACAAATTCAGCATATAATATATATGTCAGCAGCGCATATC 2340  
DB 14509 CTACAGCGTATGTAACATACAAATTCAGCATATAATATATATGTCAGCAGCGCATATC 14450  
QY 2341 TCGCGTGTGCGCCGTTCTAATCAATGTAATTTACTTTTAAACATAATTTTACCCAAA 2400  
DB 14449 TCGCGTGTGCGCCGTTCTAATCAATGTAATTTACTTTTAAACATAATTTTACCCAAA 14390  
QY 2401 ACTGTTATCAATTTAGATGCGAGATACAAATACCGAGCAAAACCAACAAATATATCTA 2460  
DB 14389 ACTGTTATCAATTTAGATGCGAGATACAAATACCGAGCAAAACCAACAAATATATCTA 14330  
QY 2461 TGTATAAAAAATATATACTGCTATACAA 2488  
DB 14329 TGTATAAAAAATATATACTGCTATACAA 14302

RESULT 6  
ABL07559  
ID ABL07559 standard; cDNA; 2483 BP.  
XX

AC ABL07559;  
XX 26-MAR-2002 (first entry)  
XX Drosophila melanogaster expressed polynucleotide SEQ ID NO 17159.  
DE Drosophila; developmental biology; cell signalling; insecticide;  
XX pharmacological; gene; ss.  
XX Drosophila melanogaster.  
XX WO200171042-A2.  
XX 27-SEP-2001.  
XX 23-MAR-2001; 2001WO-US009231.  
XX 23-MAR-2000; 2000US-0191637P.  
XX 11-JUL-2000; 2000US-00614150.  
XX (PEKE ) PE CORP NV.  
XX Venter JC, Adams M, Li PWD, Myers BW;  
XX WPI; 2001-656860/75.  
XX P-PSDB; ABB63456.  
XX New isolated nucleic acid detection reagent for detecting 1000 or more  
XX genes from Drosophila and for elucidating cell signalling and cell-cell  
XX interactions.  
XX Claim 1; SEQ ID NO 17159; 21pp + Sequence Listing; English.  
XX The invention relates to an isolated nucleic acid detection reagent  
XX capable of detecting 1000 or more genes from Drosophila. The invention is  
XX useful in developmental biology and in elucidating cell signalling and  
XX cell-cell interactions in higher eukaryotes for the development of  
XX insecticides, therapeutics and pharmaceutical drugs. The invention  
XX discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA  
XX sequences (ABL01840-ABL16175) and the encoded proteins (ABBS7737-  
XX ABB27072). The sequence data for this patent did not form part of the  
XX printed specification, but was obtained in electronic format directly  
XX from WIPO at ftp.wipo.int/pub/published\_pct\_sequences  
XX  
SQ Sequence 2483 BP; 665 A; 668 C; 648 G; 502 T; 0 U; 0 Other;  
  
Query Match 99.8%; Score 2483; DB 4; Length 2483;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2483; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 1 AAAAATGTCGACGCGAAAAAGGTATTTTATTCATTAGTCAGAAAGCTCTGGCAATCTTTGT 60  
DB 1 AAAAATGTCGACGCGAAAAAGGTATTTTATTCATTAGTCAGAAAGCTCTGGCAATCTTTGT 60  
QY 61 TTGTTGTTAAAAAGCGCAATTTTGGAGGCGAGCGAATAAAGTGCCTGCTCCATCGGC 120  
DB 61 TTGTTGTTAAAAAGCGCAATTTTGGAGGCGAGCGAATAAAGTGCCTGCTCCATCGGC 120  
QY 121 TCAGATTATGTAATGAGCAACAGACCCCAACCAACAGAACTGCAACTGCTCCACT 180  
DB 121 TCAGATTATGTAATGAGCAACAGACCCCAACCAACAGAACTGCAACTGCTCCACT 180  
QY 181 TGGCCCAACGACCAATAGCGGAGCGGACCGGTGGCGTGGCAAGTGAACCCCA 240  
DB 181 TGGCCCAACGACCAATAGCGGAGCGGACCGGTGGCGTGGCAAGTGAACCCCA 240  
QY 241 ACAGAGGCGGAAAGCGAGCCAGACACACACATACACAGAGAGAACGAGCAAGAG 300  
DB 241 ACAGAGGCGGAAAGCGAGCCAGACACACACATACACAGAGAGAACGAGCAAGAG 300  
QY 301 AAACCGGTAGCGGAGGAGCGCTGCCGCCAGTTCCTCAATATACCCAGCAACCATCA 360  
DB 301 AAACCGGTAGCGGAGGAGCGCTGCCGCCAGTTCCTCAATATACCCAGCAACCATCA 360

Qy	361	CAAGCCAGGATGACAACTCGACCGACGCGCAGCTTTTCGGCTGAGCCACATCAAGGA	420
Db	361		
Qy	421	GAAGGTCAAGCCGAGCAATCTCGAGCTGAACGACAGCAACAAACAGCAAGCTTTTCGCCCAA	480
Db	421		
Qy	481	GGCCGAGAGTCCGTCGCCCTTCATGACGCGGCATGTCATGCTCCAGTGTCCGCGCGCTC	540
Db	481		
Qy	541	CAACTCCGCCAGCTCCAAACAACAACAGCGCTGGAGATGCCAATGGCGCAGGCGCCCA	600
Db	541		
Qy	601	TTCCGCTGGAGGCTCTGCCCGCGCTGCAGTCCAGCAGCAGTATCCGCTAAACCATCCGCT	660
Db	601		
Qy	661	GAGCGCAGCAAGCACTCTGCTCTATTTGGGGATCGGGCCAGTGGCAAGCACTACGG	720
Db	661		
Qy	721	CGTGTACAGCTGTGAGGGCTGCAAGGGCTTCTTTAAACGACAGTGGCGAAGGATCTCAC	780
Db	721		
Qy	781	ATACGCTTTCAGGGAGAACCGCAACTGCATCATAGACAAGCGGAGAGAAACCGCTGCCA	840
Db	781		
Qy	841	GTAATCGCGCTACAGAAAGTGCTAACTGGGGCATGAAAGCGGAGAGCGGTCCAGAGGA	900
Db	841		
Qy	901	CGCTCAACCGCGCGCCCAATGCGCGGTAGGCTCAGCGCCAGCGAGCGCGCAGTAG	960
Db	901		
Qy	961	CGGTCAGGTTTCGTPAGCGGATCCAGCTCTCAAGCGGAGGAGGAGGCGCGTTTC	1020
Db	961		
Qy	1021	TGGCGGAATGGCAGCGGCAACGGTTCTGATGACTTTCATGACCAATAGCGTGTCCAGGGA	1080
Db	1021		
Qy	1081	TTTCTCGATCGAGCGCATATAGAGGCGAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAG	1140
Db	1081		
Qy	1141	TGCACTGAGCTTCTCGCGGTTGGTCCCTATTCCAAGTCCAGCGGAGTCAAGGGTGC	1200
Db	1141		
Qy	1201	CGTGTGGCGCTGTGCCAAGTGGTCAACAACAGCTCTTCAGATGTCGATAGCGCG	1260
Db	1201		
Qy	1261	CATGATCGCGACTTTGCCAGTGGTCCGCTGGAGCAGCAGGTGATCTGCTGAAAGCGCG	1320
Db	1261		
Qy	1321	TTGGATCGAGCTGCTCATTTGGAAAGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG	1380
Db	1321		
Qy	1381	CGGTCCCGCGCGGGGGGGTGGATAGGCCACGATGGCTCTTTGAGCGCAGTACCC	1440
Db	1381		

Qy	1441	GGGCTTTACGCCCGCAGCAGCTGTTCTCTCAACAGAGCTTCTCTACCATCGCAACAGTGC	1500
Db	1441		
Qy	1501	GATCAAAAGCCGGTGTGTACGCCATCTTCGACCGCATATTGTTCGGAGCTGATGTAAAGAT	1560
Db	1501		
Qy	1561	GAAGCGCTCAATCTCGACCGACGCGAGCTGTCTGCTTCAAGGCCCATCATCTGTATCAA	1620
Db	1561		
Qy	1621	CCCGGACATACGCGGGATCAAGAGCCGGCGGAGATCGAGATGTGCCGAGAAGGTGTA	1680
Db	1621		
Qy	1681	CGCTTGGCTGGAAGCAGCTGCGCGCTTGGAAACATCCGGGCGAGCATGGACGCTTTGGCA	1740
Db	1681		
Qy	1741	ACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	1800
Db	1741		
Qy	1801	CCTCTTCGCAATTACCAAGCGACCGCGCTGGAGGAGCTCTTTCTCGAGCAGCTGGAGGC	1860
Db	1801		
Qy	1861	GCGCGCGCAACCGCGCTGGCGATGAAACTGGAGTAGGGTCCCGACTCTAAAGTCTGCC	1920
Db	1861		
Qy	1921	CGTCTCCATCCGAAATGTTTCATGTCATGTCGTTGTTGTCATTTCTCTCTCTAT	1980
Db	1921		
Qy	1981	CCCTTATACCTACAAAGGCCCTTAATATAGCAAAATGTGTATGTAAATGTTTATTT	2040
Db	1981		
Qy	2041	TTTTTTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA	2100
Db	2041		
Qy	2101	AGATTAGCTCTCTCGAGTGTATGTCCAGTAAACGAAACAAACAAACAAACAAACAACTT	2160
Db	2101		
Qy	2161	GAAAGAACACAAACACGAAACGAGAAATGCAACAAGCAAAAGTAAAGTTAA	2220
Db	2161		
Qy	2221	ACTAAAGCTAAACGAGTAAAGATTAATAATTAACGGTTAAATTAATTAATTAATTAAT	2280
Db	2221		
Qy	2281	CTACAGAGTATGTAAACATACATAAATTCAGATAAATATATGTCTAGAGCGCATATC	2340
Db	2281		
Qy	2341	TGCGGTGCTGGCGCGCTTCTAAATCAATGTAAATTAATTAATTAATTAATTAATTAAT	2400
Db	2341		
Qy	2401	ACGTTATCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT	2460
Db	2401		
Qy	2461	TGTTATTAATAATAATAAATTCAT	2483
Db	2461		

```
RESULT 7
AAQ14176
ID AAQ14176 standard; cDNA; 2304 BP.
XX
AC AAQ14176;
XX
DT 25-MAR-2003 (revised)
DT 07-JAN-1992 (first entry)
XX
DE Clone pXR2C8 encoding insect steroid receptor XR2C.
XX
KW fruit fly; ultraspiracle locus; USP; transcription regulation; ss.
XX
OS Drosophila melanogaster.
XX
FH Key Location/Qualifiers
FT CDS 163..1704
FT /tag= a
FT /product= "XR2C"
XX
PN WO9114695-A.
XX
PD 03-OCT-1991..
XX
PF 22-MAR-1990; 90US-00497935.
XX
PR 22-MAR-1990; 90US-00497935.
XX
PA (SALK ) SALK INST BIOLOGICAL STUDIES.
XX
PI Oro AE, Evans RM;
XX
WPI; 1991-310528/42.
DR P-PSDB; AAR14304.
XX
PT New insect receptor polypeptide(s) activated by retinoic acid - for
PT identification of compounds able to affect gene transcription.
XX
PS Claim 3; Fig.1; 32pp; English.
XX
CC A Southern blot of D.melanogaster EcoRI-digested, genomic DNA was
CC screened with a probe comprising the DNA-binding domain of hRAR- alpha-
CC encoding DNA. Potential homologs of vertebrate steroid hormone receptors
CC were identified. One group mapped to 2C9 on the D. melanogaster first
CC chromosome and was labelled XR2C. A portion of a genomic insert
CC hybridising most strongly to the fragment of the hRAR- alpha-encoding DNA
CC probe was sequenced. The amino acid sequence deduced from it resembled a
CC steroid receptor DNA binding domain. The insert was used to screen a
CC total third instar larval imaginal disc cDNA library. The longest
CC positive clone was pXR2C8 and has the sequence given here. (Updated on 25
CC -MAR-2003 to correct PA field.)
XX
SQ Sequence 2304 BP; 631 A; 619 C; 603 G; 451 T; 0 U; 0 Other;

Query Match 90.0%; Score 2238.2; DB 2; Length 2304;
Best Local Similarity 99.5%; Pred. No. 0;
Matches 2269; Conservative 0; Mismatches 3; Indels 9; Gaps 2;

QY 209 GGACACGGTGGGTCGCAAGTGAACCCCAACAGAGAGGCGGAAGCGAGCCAGACAC 268
DB 1 GGACACGGTGGGTCGCAAGTGAACCCCAACAGAGAGGCGGAAGCGAGCCAGACAC 60
QY 269 ACCACATACACAGGAAGAGACGACGAAGAAACCGTAGGCGGAGAGGCGCTGCC 328
DB 61 ACCACATACACAGGAAGAGACGACGAAGAAACCGTAGGCGGAGAGGCGCTGCC 120
QY 329 CCAAGTTCCTCCAAATATACCCAGCACCATACAAAGCCAGGATGGACAACCTGCGAC 388
DB 121 CCAAGTTCCTCCAAATATACCCAGCACCATACAAAGCCAGGATGGACAACCTGCG 180
QY 389 GACGCCAGCTTCGCTGAGCCACATCAAGGAGGAGGTCAAGCCGGACATCTCGAGCTG 448
DB 181 GACGCCAGCTTCGCTGAGCCACATCAAGGAGGAGGTCAAGCCGGACATCTCGAGCTG 240
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QY 449 AACGACAGCAACACAGCAGCTTTTCGGCCCAAGGCCGAGAGTCCCGTGCCTTCATGCAG 508
DB 241 AACGACAGCAACACAGCAGCTTTTCGGCCCAAGGCCGAGAGTCCCGTGCCTTCATGCAG 300
QY 509 GCCATGTCCATGTGTCACGTGTCGCCCGCTCCAACTCCGCCAGCTCCAAACAAACAGC 568
DB 301 GCCATGTCCATGTGTCACGTGTCGCCCGCTCCAACTCCGCCAGCTCCAAACAAACAGC 360
QY 569 GCTGGAGATGCCAAATGCGCAGCGCCCAATTCGGGTGGAGGCTCTGCGCCCGCTGCA 628
DB 361 GCTGGAGATGCCAAATGCGCAGCGCCCAATTCGGGTGGAGGCTCTGCGCCCGCTGCA 420
QY 629 GTCCAGACGACGATATCCCGCTAAACCATCCGCTAGCGGCAGCAACACACTCTGCTTATT 688
DB 421 GTCCAGACGACGATATCCCGCTAAACCATCCGCTAGCGGCAGCAACACACTCTGCTTATT 480
QY 689 TCGGGGATCGGGCCAGTGGCAAGCACTACGGCGTGTACAGCTGTGAGGGCTGCAAGGCG 748
DB 481 TCGGGGATCGGGCCAGTGGCAAGCACTACGGCGTGTACAGCTGTGAGGGCTGCAAGGCG 540
QY 749 TTCTTTAAACGACAGTGGCAAGGATCTCACATACGCTTCGAGGGAGAACCGCAACTGC 808
DB 541 TTCTTTAAACGACAGTGGCAAGGATCTCACATACGCTTCGAGGGAGAACCGCAACTGC 600
QY 809 ATCATAGACAAAGCGCAGAGGAACCGCTGCCAGTACTGCCCTACAGAGTGCCTAACCC 868
DB 601 ATCATAGACAAAGCGCAGAGGAACCGCTGCCAGTACTGCCCTACAGAGTGCCTAACCC 660
QY 869 TCGGCGATGAAGCGCGAAGCGGTCCAGAGAGAGGTCAACCGCGCGCCGCAATCGGCG 928
DB 661 TCGGCGATGAAGCGCGAAGCGGTCCAGAGAGAGGTCAACCGCGCGCCGCAATCGGCG 720
QY 929 GGTAGGCTCAGCGCCAGCGGAGGCGGAGTCCAGGTCCAGGTTCGGTAGGCGGATCCAGC 988
DB 721 GGTAGGCTCAGCGCCAGCGGAGGCGGAGTCCAGGTTCGGTAGGCGGATCCAGC 780
QY 989 TCTCAAGCGGAGGAGGAGGCGGCGTTTCTGCGGGAATGGGCGAGCGGCAACCGTTCT 1048
DB 781 TCTCAAGCGGAGGAGGAGGCGGCGTTTCTGCGGGAATGGGCGAGCGGCAACCGTTCT 840
QY 1049 GATGACTTCATGACCAATAGCGTGTCCAGGGAATTTCTCGATCGAGCGCATCATAGAGCC 1108
DB 841 GATGACTTCATGACCAATAGCGTGTCCAGGGAATTTCTCGATCGAGCGCATCATAGAGCC 900
QY 1109 GAGCAGCAGCGGAGACCCCAATGCGGCGATCGTGCACTGACGTTCTCTGCGGTGGTCCC 1168
DB 901 GAGCAGCAGCGGAGACCCCAATGCGGCGATCGTGCACTGACGTTCTCTGCGGTGGTCCC 960
QY 1169 TATTCCACAGTCCAGCGCGGACTACAAGGGTGCCTGTGCGGCGCTGTGCAAGTGGTCAAC 1228
DB 961 TATTCCACAGTCCAGCGCGGACTACAAGGGTGCCTGTGCGGCGCTGTGCAAGTGGTCAAC 1020
QY 1229 AAAACAGCTTTCAGATGGTTCGAATACCGCGCGATGATGCGCACTTTTGGCCAGGTGCG 1288
DB 1021 AAAACAGCTTTCAGATGGTTCGAATACCGCGCGATGATGCGCACTTTTGGCCAGGTGCG 1080
QY 1289 CTGACGACACAGGTGATTTCTCTCAAAAGCCGCTTGGATCGAGCTGCTCATTTGCCAAGCTG 1348
DB 1081 CTGACGACACAGGTGATTTCTCTCAAAAGCCGCTTGGATCGAGCTGCTCATTTGCCAAGCTG 1140
QY 1349 GCCTGGTGCAGATCTGTTTCGCTGATGACGGCGGTGCGGCGGCGGGGGGGTGGACTA 1408
DB 1141 GCCTGGTGCAGATCTGTTTCGCTGATGACGGCGGTGCGGCGGCGGGGGGGTGGACTA 1200
QY 1409 GGCCACAGATGCTCTTTTGAAGCGACGATCAACCGGGCCCTTCAAGCCCGACAGCTGTTCCTC 1468
DB 1201 GGCCACAGATGCTCTTTTGAAGCGACGATCAACCGGGCCCTTCAAGCCCGACAGCTGTTCCTC 1260
QY 1469 AACGACAGCTTCTGTTACCATCGCAACAGTGGGATCAAGCGGCTGTGTGAGCCATCTTC 1528
DB 1261 AACGACAGCTTCTGTTACCATCGCAACAGTGGGATCAAGCGGCTGTGTGAGCCATCTTC 1320
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Db 121 CAGTTCTCCAAATATATACCCAGACCAACATCAAGCCAGGATGACAACTCGACCCAG 180  
Qy 389 GAGCCAGCTTTCCGCTGAGCCACATCAAGAGGAGGTCAAGCCGACATCTCGCAGCTG 448  
Db 181 GAGCCAGCTTTCCGCTGAGCCACATCAAGGAGGATCAAGCCGACATCTCGCAGCTG 240  
Qy 449 AACGACAGCAACAAAGCAGCTTTTCGCCCAAGGCCGAGAGTCCCGTGCCTTTATGACAG 508  
Db 241 AACGACAGCAACAAAGCAGCTTTTCGCCCAAGGCCGAGAGTCCCGTGCCTTTATGACAG 300  
Qy 509 GCATGCTCCATGCTGCACAGTGCCTCCCGGCTCCAACTCCGCCAGCTCCAAACAAACAGC 568  
Db 301 GCATGCTCCATGCTGCACAGTGCCTCCCGGCTCCAACTCCGCCAGCTCCAAACAAACAGC 360  
Qy 569 GCTGGAGATGCCAAATGGCGAGCGGCCAAATTCGGCTGAGGCTCTCGCGCGCTGCA 628  
Db 361 GCTGGAGATGCCAAATGGCGAGCGGCCAAATTCGGCTGAGGCTCTCGCGCGCTGCA 420  
Qy 629 GTCCAGCAGCATCTCCGCTTAACATCCGCTGAGCGGAGCAAGCACTCTGCTCTATT 688  
Db 421 GTCCAGCAGCATCTCCGCTTAACATCCGCTGAGCGGAGCAAGCACTCTGCTCTATT 480  
Qy 689 TCGGGGATCGGSCCAGTGCAGCACTACGGCTGTACAGCTGTGAGGGCTGCAAGGGC 748  
Db 481 TCGGGGATCGGSCCAGTGCAGCACTACGGCTGTACAGCTGTGAGGGCTGCAAGGGC 540  
Qy 749 TTCTTTAAACGACAGTGGCGAGGATCTCACATACGCTTGCAAGGAGAACCGCAACTGC 808  
Db 541 TTCTTTAAACGACAGTGGCGAGGATCTCACATACGCTTGCAAGGAGAACCGCAACTGC 600  
Qy 809 ATCATAGACAAGCGGAGAGAAACCGCTGCCAGTACTGCCGTACAGAAAGTGCCTAAC 868  
Db 601 ATCATAGACAAGCGGAGAGAAACCGCTGCCAGTACTGCCGTACAGAAAGTGCCTAAC 660  
Qy 869 TCGGCAATGAAGCGGAGCGGCTCCAGAGAGCGTCAACGGCGCCCGCAATGCGGCG 928  
Db 661 TCGGCAATGAAGCGGAGCGGCTCCAGAGAGCGTCAACGGCGCCCGCAATGCGGCG 720  
Qy 929 GGTAGGCTCAGCGCAGCGAGCGGCGAGTACGGTCCAGGTTCCGTTAGCGGATCCAGC 988  
Db 721 GGTAGGCTCAGCGCAGCGAGCGGCGAGTACGGTCCAGGTTCCGTTAGCGGATCCAGC 780  
Qy 989 TCTCAAGCGGAGGAGGAGCGCGGTTCTGCGGGAATGGGAGCGGCAACGTTCT 1048  
Db 781 TCTCAAGCGGAGGAGGAGGAGCGCGGTTCTGCGGGAATGGGAGCGGCAACGTTCT 840  
Qy 1049 GATGACTTCATGACCAATAGCTGTCCAGGATTTCTGATCGAGGCACTATAGAGGC 1108  
Db 841 GATGACTTCATGACCAATAGCTGTCCAGGATTTCTGATCGAGGCACTATAGAGGC 900  
Qy 1109 GAGCAGCAGCGAGACCCAAATGCGCGATCGTGCACTGACGTTCTGCGCGTTGTTGCC 1168  
Db 901 GAGCAGCAGCGAGACCCAAATGCGCGATCGTGCACTGACGTTCTGCGCGTTGTTGCC 960  
Qy 1169 TATTCCACAGTCACGCCGACTACAAGGGTGCCTGTGCGCCCTGTGCCAAGTGGTCAAC 1228  
Db 961 TATTCCACAGTCACGCCGACTACAAGGGTGCCTGTGCGCCCTGTGCCAAGTGGTCAAC 1020  
Qy 1229 AAACAGCTTCCAGATGTCGAATACGCGCGCATGATGCCGCACTTTGCCCAGTGGCG 1288  
Db 1021 AAACAGCTTCCAGATGTCGAATACGCGCGCATGATGCCGCACTTTGCCCAGTGGCG 1080  
Qy 1289 CTGGACGACAGTGAATCTGCTGAAGCCGCTTGGATCGAGCTGCTCATTCGGAACGTG 1348  
Db 1081 CTGGACGACAGTGAATCTGCTGAAGCCGCTTGGATCGAGCTGCTCATTCGGAACGTG 1140  
Qy 1349 GCTTGGTGCAGCATGTTTGGCTGGATGACGGCGGTGCGCGGGGGGGGGTGGACTA 1408  
Db 1141 GCTTGGTGCAGCATGTTTGGCTGGATGACGGCGGTGCGCGGGGGGGGGTGGACTA 1200  
Qy 1409 GSCCAAGATGGCTCTTTGAGCGACATGACCGGGGCTTTAGCCCGCAGCAGCTGTTCCTC 1468  
Db 1201 GSCCAAGATGGCTCTTTGAGCGACATGACCGGGGCTTTAGCCCGCAGCAGCTGTTCCTC 1260

Qy 1469 AACCAAGAGCTTCTCGTACCATCGCAACAGTGCAGTCAAAAGCCGGTGTGTGAGCCATCTTC 1528  
Db 1261 AACCAAGAGCTTCTCGTACCATCGCAACAGTGCAGTCAAAAGCCGGTGTGTGAGCCATCTTC 1320  
Qy 1529 GACCGCATATTTGTCGGAGCTGAGTGAAGAGTGAAGCGGCTGAATCTCGACCGACGCGAG 1588  
Db 1321 GACCGCATATTTGTCGGAGCTGAGTGAAGAGTGAAGCGGCTGAATCTCGACCGACGCGAG 1380  
Qy 1589 CTGTCTCTGCTCAAGCCCATCATCTGTACAAACCGGACATACGCGGGATCAAGAGCCGG 1648  
Db 1381 CTGTCTCTGCTCAAGCCCATCATCTGTACAAACCGGACATACGCGGGATCAAGAGCCGG 1440  
Qy 1649 GCGGAGATCGAGATGTGCGCGGAGAGGTGTACGCTTGCTCGAGCAGCACTGCGCCCTG 1708  
Db 1441 GCGGAGATCGAGATGTGCGCGGAGAGGTGTACGCTTGCTCGAGCAGCACTGCGCCCTG 1500  
Qy 1709 GAAATCTCGGGGCGACGATGGAGCGCTTTGGCGAACTGTCTGCTGCGCTGCGGCTTTGGG 1767  
Db 1501 GAAATCTCGGGGCGACGATGGAGCGCTTTGGCGAACTGTCTGCTGCGCTGCGGCTTTGGG 1560  
Qy 1768 ATCGATCAGCCTGAAGTGCAGGATCACTGTTCTCTTCCGATTTACGAGCAGCGGC 1827  
Db 1561 ATCGATCAGCCTGAAGTGCAGGATCACTGTTCTCTTCCGATTTACGAGCAGCGGC 1620  
Qy 1828 GCTGAGGAGCTCTTTCTCGAGCAGCTGGAGCGCGCGCCACCGGCTTGGCGATGAA 1887  
Db 1621 GCTGAGGAGCTCTTTCTCGAGCAGCTGGAGCGCGCGCCACCGGCTTGGCGATGAA 1680  
Qy 1888 ACTGAGTAGGGTCCCGACTCTTAAAGTCTCCCGCTTCCATCCGAAATAATGTTTCA 1947  
Db 1681 ACTGAGTAGGGTCCCGACTCTTAAAGTCCCGCTTCCATCCGAAATAATGTTTCA 1740  
Qy 1948 GTGATGCGTTTGTGTCATTTCTCTCTATCTCTATCTCTATACCTTACAAAGCCCTTAA 2007  
Db 1741 GTGATGCGTTTGTGTCATTTCTCTCTAT-----CCCTACAAAGCCCTTAA 1792  
Qy 2008 TATTACGCAAAATGTATGTAAATGTTTATTTTTTTTTTATTTACTTAATATTTATTA 2067  
Db 1793 TATTACGCAAAATGTATGTAAATGTTTATTTTTTTTTTATTTACTTAATATTTATTA 1852  
Qy 2068 TTTTGTATATAGAAATGTTTCTTAAAGTGAAGATTAGCTCTCGAGTTTATGTC 2127  
Db 1853 TTTTGTATATAGAAATGTTTCTTAAAGTGAAGATTAGCTCTCGAGCTTATGTC 1912  
Qy 2128 CAGTAAACGAAACAAACAAATCCAAACTTTGAAAGNACACAAACACGAAACGAGNA 2187  
Db 1913 CAGTAAACGAAACAAACAAATCCAAACTTTGAAAGNACACAAACACGAAACGAGNA 1972  
Qy 2188 AATGCACACAAAGCAAAAGTAAAGTAAAGTAAAGCTAAAGCTAAAGATATTA 2247  
Db 1973 AATGCACACAAAGCAAAAGTAAAGTAAAGTAAAGCTAAAGCTAAAGATATTA 2032  
Qy 2248 AAATAACGGTTTAAATTAATGCATAGTTATGATCTACAGAGTATGTAAACATACAAAT 2307  
Db 2033 AAATAACGGTTTAAATTAATGCATAGTTATGATCTACAGAGTATGTAAACATACAAAT 2092  
Qy 2308 CAGCATAAATATATATGTACGAGCGCATATCTGCGGTGTGCGCCCGTCTTAATCNA 2367  
Db 2093 CAGCATAAATATATATGTACGAGCGCATATCTGCGGTGTGCGCCCGTCTTAATCNA 2152  
Qy 2368 TTGTAAATTAATTTTAAACATAAATTTACCCAAAGCTTATCAATTAGATGCGAGATACAA 2427  
Db 2153 TTGTAAATTAATTTTAAACATAAATTTACCCAAAGCTTATCAATTAGATGCGAGATACAA 2212  
Qy 2428 AAATCAGCAGAAACCAACAAATATCTATGTATAAAAATAATAAATCTGCATAACA 2487  
Db 2213 AAATCAGCAGAAACCAACAAATATCTATGTATAAAAAATAATAAATCTGCATAACA 2272  
Qy 2488 A 2488  
Db 2273 A 2273







QY 1409 GGGCCAGATGGCTCTTTGAGCGAGCATCACCGGGCCCTTCAGCCCCAGCAGCTGTTCCTC 1468  
Db |||||  
QY 1469 AACCAGAGCTCTCGTACCATCGACACAGTGGATCAAGCCGGTGTGTGACGCATCTTC 1528  
Db |||||  
QY 1529 GACCGCATATCTCGGAGCTGAGTGTAAAGATGAAGCGCTGAATCTCGACCGAGCGAG 1588  
Db |||||  
QY 1589 CTGTCTGTGTTGAAGCCATCATCTGTATAACCCGGACATACGCGGGATCAAGAGCCGG 1648  
Db |||||  
QY 1649 GGGGAGATCGATGTCGCGGAGAGGTGTAGCTTGCTGCGAGCAGCAGCAGCGCCCTG 1708  
Db |||||  
QY 1709 GAAACATCCGGGCGACATGAGACGCTTTGGCGCAACTGCTGCTGCTGCG- CGCCTTTGG 1767  
Db |||||  
QY 1768 ATCGATCAGCCTGAAAGTGCAGGATCACCTGTTCTCTTTCCGCAATTACCAGCGACCGGC 1827  
Db |||||  
QY 1828 GCTGAGGAGCTCTTTCTCGAGCAGCTGAGGCGCGCGCCACCGCGCTGGGATGAA 1887  
Db |||||  
QY 1888 ACTGAGTAGGCTCCGACCTCTAAAGTCTCCCGCTTCTCCATCCGAAAAATGTTTCATT 1947  
Db |||||  
QY 1948 GTGATTGCGTTGTTTGGCATTTCTCCTCTCTATCCCTTATACCCCTACAAAAGCCCTTAA 2007  
Db |||||  
QY 2008 TATTACGCAAAATGTAATGTAATGTTATTTTATTTTATTTTATTTTATTTATTTATTTA 2067  
Db |||||  
QY 2068 TTATTGTATAGAAAATGTTTCTTAAAGTGAAGTATGAGTATGAGTATGAGTATGAGTATG 2127  
Db |||||  
QY 2128 CAGTAAACGAAAAACAAACAAATCCAAAACCTTGAAGAAACACAAAACACGAGAGAA 2187  
Db |||||  
QY 2188 AATGACACAGCAAGTAAAGTAAAGTTAAAGTTAAAGTTAAAGTTAAAGTTAAAGTTAA 2247  
Db |||||  
QY 2248 AATTAACGTTTAAATTAATGATATGATATGATATGATATGATATGATATGATATGATAT 2307  
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QY 2308 CAGCATAAATATATATGTCAGCAGCGCATATCTCGGCTGCTGCGCCCGTTCTTAATCAA 2367  
Db |||||  
QY 2368 TTGTAATTTACTTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2427  
Db |||||  
QY 2428 AATCACCAGCAAGAAACCAACAAATATATCTATGTATTAATAATAATAATAATACTGATA 2487  
Db |||||  
QY 2487 AATCACCAGCAAGAAACCAACAAATATATCTATGTATTAATAATAATAATAATACTGATA 2547  
Db |||||

QY 2488 A 2488  
Db 2273 A 2273

RESULT 10  
AAT89959  
ID AAT89959 standard; DNA; 2304 BP.  
XX  
AC AAT89959;  
XX  
DT 19-MAR-1998 (first entry)  
XX  
DE D. melanogaster XR2C retinoid-like receptor DNA.  
XX  
KW Retinoid-like receptor; XR2C; insecticide; RXR-alpha; transcription;  
ultraspiracle locus; steroid/thyroid receptor superfamily; ss.  
XX  
OS Drosophila melanogaster.  
XX  
FH Key Location/Qualifiers  
CDS 163..1704  
FT /\*tag= a  
FT /product= "XR2C"  
FT /note= "retinoid-like receptor"  
XX  
PN US5688691-A.  
XX  
PD 18-NOV-1997.  
XX  
PF 05-JUN-1995; 95US-00464272.  
XX  
PR 22-MAR-1990; 90US-00497935.  
PR 04-FEB-1993; 93US-00013975.  
XX  
PA (SALK ) SALK INST BIOLOGICAL STUDIES.  
XX  
PI Oro AE, Evans RM;  
XX  
DR WPI; 1998-007984/01.  
DR P-PSDB; AAW31320.  
XX  
PT DNA encoding insect retinoid-like receptor - used to transform insect  
cells for insecticide screening.  
XX  
PS Claim 1; Col 9-14; 11pp; English.  
XX  
CC This DNA sequence encodes an novel retinoid-like receptor protein XR2C  
which is structurally and functionally related to the steroid/thyroid  
superfamily of receptors. This gene is substantially similar to mammalian  
RXR-alpha receptors which are activated to modulate transcription of  
certain genes in cells when the cells are exposed to retinoic acid and  
has been mapped to the Drosophila ultraspiracle locus. This receptor can  
be used to screen for compounds of potential value as insecticides  
XX  
SQ Sequence 2304 BP; 631 A; 619 C; 603 G; 451 T; 0 U; 0 Other;

Query Match 90.0%; Score 2238.2; DB 2; Length 2304;  
Best Local Similarity 99.5%; Pred. No. 0;  
Matches 2269; Conservative 0; Mismatches 3; Indels 9; Gaps 2;

QY 209 GGACACGGTGGCTTTGGCAAGTGAACCCCAACAGAGAGCGAAAGAGAGAGAGAGAGAGAGAG 268  
Db ||||| 1 GGACACGGTGGCTTTGGCAAGTGAACCCCAACAGAGAGCGAAAGAGAGAGAGAGAGAGAGAG 60  
QY 269 ACCACATACACAG 328  
Db ||||| 61 ACCACATACACAG 120  
QY 329 CCAGTTCTCCATATATACCCAGCAGCAGATCACAAGCCAGAGATGGACAATCTGGAGCAG 388  
Db ||||| 121 CCAGTTCTCCATATATACCCAGCAGCAGATCACAAGCCAGAGATGGACAATCTGGAGCAG 180

Qy	389	GACGCCAGCTTTTCGCTGAGCCACATCAAGAGGAGGTCAAGCCGGACATCTCGCAGCTG	448
Db	181	GACGCCAGCTTTTCGCTGAGCCACATCAAGAGGAGGTCAAGCCGGACATCTCGCAGCTG	240
Qy	449	AACGACAGCAACAACAGCAGCTTTTCGCCCCAAGCCGAGAGTCCCGTTCCTCATGCAG	508
Db	241	AACGACAGCAACAACAGCAGCTTTTCGCCCCAAGCCGAGAGTCCCGTTCCTCATGCAG	300
Qy	509	GCCATGTCATGGTTCAGCTGCTGCCGGCTCCAACTCCGCGAGCTCCAAACAAAGC	568
Db	301	GCCATGTCATGGTTCAGCTGCTGCCGGCTCCAACTCCGCGAGCTCCAAACAAAGC	360
Qy	569	GCTGGAGATGCCAAATGGCCGACGCGCCAAATTCGGCTGAGAGTCTTCGCCGCGCTGCA	628
Db	361	GCTGGAGATGCCAAATGGCCGACGCGCCAAATTCGGCTGAGAGTCTTCGCCGCGCTGCA	420
Qy	629	GTCCAGCAGCAGTATCCGCTTAACATCCGCTGAGCGGCAGCAACACCTCTGCTCTATT	688
Db	421	GTCCAGCAGCAGTATCCGCTTAACATCCGCTGAGCGGCAGCAACACCTCTGCTCTATT	480
Qy	689	TGCGGGATCCGGCCAGTGGCAAGCACTACCGCTGTACAGCTGTGAGGGCTGCAAGGC	748
Db	481	TGCGGGATCCGGCCAGTGGCAAGCACTACCGCTGTACAGCTGTGAGGGCTGCAAGGC	540
Qy	749	TTCTTTAAACGACACAGTCCGCAAGGATCTCACATACGCTTCGACGGAGAACCGCACTGC	808
Db	541	TTCTTTAAACGACACAGTCCGCAAGGATCTCACATACGCTTCGACGGAGAACCGCACTGC	600
Qy	809	ATCATAGACAGCGCAGAGGAACCGCTGCAGTATTCGCCCTACCGAAGTGCCTAAAC	868
Db	601	ATCATAGACAGCGCAGAGGAACCGCTGCAGTATTCGCCCTACCGAAGTGCCTAAAC	660
Qy	869	TGCGGCATGAAGCGGGAACCGCTCCAGAGAGAGTCAACCGGCGCCGCAATGCGGCG	928
Db	661	TGCGGCATGAAGCGGGAACCGCTCCAGAGAGAGTCAACCGGCGCCGCAATGCGGCG	720
Qy	929	GGTAGGCTCAGCGCAGCGAGGCGGAGTAGCGTCCAGGTTGCGTAGGCGGATCCAGC	988
Db	721	GGTAGGCTCAGCGCAGCGAGGCGGAGTAGCGTCCAGGTTGCGTAGGCGGATCCAGC	780
Qy	989	TCTCAAGCGGAGGAGGAGGCGGCGTTTCTGCGGAAATGGGCAGCGGCAACGGTTCT	1048
Db	781	TCTCAAGCGGAGGAGGAGGCGGCGTTTCTGCGGAAATGGGCAGCGGCAACGGTTCT	840
Qy	1049	GATGACTTCATGACCAATAGGTGTCCAGGATTTCTCGATCGAGCGCATATAGAGCC	1108
Db	841	GATGACTTCATGACCAATAGGTGTCCAGGATTTCTCGATCGAGCGCATATAGAGCC	900
Qy	1109	GAGCAGCAGCGGAGACCCAAATGCGCGCATCGTGCACTGACGTTCTCGCGGTTGGTCCC	1168
Db	901	GAGCAGCAGCGGAGACCCAAATGCGCGCATCGTGCACTGACGTTCTCGCGGTTGGTCCC	960
Qy	1169	TATTCACAGTCCAGCCGAGCTACAAAGGGTCCGCTGTCGGCCCTGTGCCAAGTGGTCAAC	1228
Db	961	TATTCACAGTCCAGCCGAGCTACAAAGGGTCCGCTGTCGGCCCTGTGCCAAGTGGTCAAC	1020
Qy	1229	AAAAGCTCTTCCAGATGGTGGATACCGCGGCATGATGCGGCATTTGCCAGGTGCGG	1288
Db	1021	AAAAGCTCTTCCAGATGGTGGATACCGCGGCATGATGCGGCATTTGCCAGGTGCGG	1080
Qy	1289	CTGGACGACCAAGTCAATCTGCTGAAAGCCGCTTCGGATCGAGCTGCTCAATTCGCAACGTG	1348
Db	1081	CTGGACGACCAAGTCAATCTGCTGAAAGCCGCTTCGGATCGAGCTGCTCAATTCGCAACGTG	1140
Qy	1349	GCCTGGTGCAGCATCGTTTTCGCTGGATGACGCGGTGTCGGCGCGCGGGCGGTGGAATA	1408
Db	1141	GCCTGGTGCAGCATCGTTTTCGCTGGATGACGCGGTGTCGGCGCGCGGGCGGTGGAATA	1200
Qy	1409	GGCCACGATGGCTCTTTGAGGAGCAGATCAACGGGCGCTTCAGCCCCCAGCAGCTGTCTTC	1468
Db	1201	GGCCACGATGGCTCTTTGAGGAGCAGATCAACGGGCGCTTCAGCCCCCAGCAGCTGTCTTC	1260
Qy	1469	AACCAGAGCTTCTCGTACCATCGCAACAGTGCATCAAAAGCGGCTGTGTCAGCCCATCTTC	1528

RESULT 11

Db	1261	AACCAGAGCTTCTCGTACCATCGCAACAGTGCATCAAAAGCGGTGTGTGAGCCATCTTC	1320
Qy	1529	GACCGCATATTTGTCGGAGCTGAGTTAAAGATGAAGCGGCTGAATCTCGACCCGACGCGAG	1588
Db	1321	GACCGCATATTTGTCGGAGCTGAGTTAAAGATGAAGCGGCTGAATCTCGACCCGACGCGAG	1380
Qy	1589	CTGTCTGCTTGAAGGCCCATCTACTGTACAAACCGGACATACGCGGATCAAGAGCGG	1648
Db	1381	CTGTCTGCTTGAAGGCCCATCTACTGTACAAACCGGACATACGCGGATCAAGAGCGG	1440
Qy	1649	GCGGAGATCGAGATGTGCGCGGAGAGGTGACGCTTTCCTGAGCAGACATGCGCGCTG	1708
Db	1441	GCGGAGATCGAGATGTGCGCGGAGAGGTGACGCTTTCCTGAGCAGACATGCGCGCTG	1500
Qy	1709	GAACATCCGGGCGACGATGACGCTTTGCGCAACTGCTGCTGCGTCTGCGCGCTTTCGCG	1767
Db	1501	GAACATCCGGGCGACGATGACGCTTTGCGCAACTGCTGCTGCGTCTGCGCGCTTTCGCG	1560
Qy	1768	ATCGATCAGCTCTGAAGTGCAGGATCACCTGTTCCTCTTCGCGATTAACGACGACCGGCC	1827
Db	1561	ATCGATCAGCTCTGAAGTGCAGGATCACCTGTTCCTCTTCGCGATTAACGACGACCGGCC	1620
Qy	1828	GCTGGAGAGCTCTTTCTCGAGCAGCTGGAGGCGCCGCCACCCGCGCTGCGCATGAA	1887
Db	1621	GCTGGAGAGCTCTTTCTCGAGCAGCTGGAGGCGCGCGCCACCCGCGCTGCGCATGAA	1680
Qy	1888	ACTGGAGTAGGTCGCCGACCTAAAGTCTCCCGGTTCTCCATCCGAAAAATGTTTCATT	1947
Db	1681	ACTGGAGTAGGTCGCCGACCTAAAGTCTCCCGGTTCTCCATCCGAAAAATGTTTCATT	1740
Qy	1948	GTGATTCGCTTGTGTCATTTCTCCTCTCTATCCCTTATACCTACAAAAAGCCCCCTAA	2007
Db	1741	GTGATTCGCTTGTGTCATTTCTCCTCTCTAT-----CCCTACAAAAAGCCCCCTAA	1792
Qy	2008	TATTACGCAAAATGTGTATGTAATGTTATTTTTTTTTTTTATTACCTTAATATTATTA	2067
Db	1793	TATTACGCAAAATGTGTATGTAATGTTATTTTTTTTTTTTATTACCTTAATATTATTA	1852
Qy	2068	TTATTGATATGAAAAATGTTTTTCTTAAGATGAAGATTAGCCTCCTCGAGTTTATGTC	2127
Db	1853	TTATTGATATGAAAAATGTTTTTCTTAAGATGAAGATTAGCCTCCTCGAGTTTATGTC	1912
Qy	2128	CAGTAAACGAAAAACAAAAATCCAAAACTTGAAAAAGAACAAAAACAGAACGAGAA	2187
Db	1913	CAGTAAACGAAAAACAAAAATCCAAAACTTGAAAAAGAACAAAAACAGAACGAGAA	1972
Qy	2188	AATGCACACAGCAAGTAAAGTAAAGTTAAACTAAAGCTAAACGAGTAAAGATATTA	2247
Db	1973	AATGCACACAGCAAGTAAAGTAAAGTTAAAGTAAAGCTAAACGAGTAAAGATATTA	2032
Qy	2248	AAATAACGGTTAAATAATTAATGTCATAGTATGATCTACAGAGTATGTAAACATCAAA	2307
Db	2033	AAATAACGGTTAAATAATTAATGTCATAGTATGATCTACAGAGTATGTAAACATCAAA	2092
Qy	2308	CAGCATAAATATATATGTCAGCAGCGCATATCTGCGGTGCTGCGCCGCTTCTAAATCAA	2367
Db	2093	CAGCATAAATATATATGTCAGCAGCGCATATCTGCGGTGCTGCGCCGCTTCTAAACCAA	2152
Qy	2368	TTGTAATTTACTTTTTTAAATAAATTTTAAACCAAAACGTTATCAATTAGATGCGAGATCAA	2427
Db	2153	TTGTAATTTACTTTTTTAAACATAAATTTTAAACCAAAACGTTATCAATTAGATGCGAGATCAA	2212
Qy	2428	AAATCAGCAGGAAAAACCAAAATATATCTATGATATAAAATATAAACTGATACACA	2487
Db	2213	AAATCAGCAGGAAAAACCAAAATATATCTATGATATAAAATATAAACTGATACACA	2272
Qy	2488	A 2488	
Db	2273	A 2273	



gene expression system useful for modulating gene expression in host cell for gene therapy and large-scale production of proteins and antibodies.

Example 1; Page 123; 123pp; English.

The invention relates to a novel gene expression modulation system comprising first and second gene expression cassettes that comprises polynucleotides encoding first and second hybrid polypeptides. The gene expression modulation system is useful for modulating the expression of a gene in a host cell comprising the gene to be modulated, for applications such as gene therapy, large-scale production of proteins and antibodies, cell-based high throughput screening assays, functional genomics and regulation of traits in transgenic organisms. This polynucleotide sequence represents DNA relating to the gene expression cassettes of the invention

Sequence 825 BP; 158 A; 248 C; 258 G; 161 T; 0 U; 0 Other;

Query Match 33.2%; Score 825; DB 6; Length 825;  
Best Local Similarity 100.0%; Pred. No. 1.4e-173;  
Matches 825; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1070 GTGTCACGGGATTTCTCGATCGAGCGCATCATAGAGCCGAGCGAGCGAGACCCAA 1129  
Db 1 GTGTCACGGGATTTCTCGATCGAGCGCATCATAGAGCCGAGCGAGCGAGACCCAA 60  
QY 1130 TCGCGCGATCGTGCATGACGTTCTGCGCGTGTGTCCTTATTCACAGTCCAGCCGAC 1189  
Db 61 TCGCGCGATCGTGCATGACGTTCTGCGCGTGTGTCCTTATTCACAGTCCAGCCGAC 120  
QY 1190 TACAAGGCGTGTGTCGCGCCTGTGCCAGTGTGTCACAAACAGCTCTTCAGATGGTC 1249  
Db 121 TACAAGGCGTGTGTCGCGCCTGTGCCAGTGTGTCACAAACAGCTCTTCAGATGGTC 180  
QY 1250 GAATACGCGCGATGATCCGACATTTGCCAGGTGCGCTGGACGACAGGTGATCTG 1309  
Db 181 GAATACGCGCGATGATCCGACATTTGCCAGGTGCGCTGGACGACAGGTGATCTG 240  
QY 1310 CTGAAGCGGCTTGATGAGTGTCTCATTTGCGAAGCTGGCTGTGTGAGCATGTTTCG 1369  
Db 241 CTGAAGCGGCTTGATGAGTGTCTCATTTGCGAAGCTGGCTGTGTGAGCATGTTTCG 300  
QY 1370 CTGATGACGCGCGTGTGCGCGCGCGGCGGTGACTAGGCCAGTGGCTCTTTGAG 1429  
Db 301 CTGATGACGCGCGTGTGCGCGCGCGGCGGTGACTAGGCCAGTGGCTCTTTGAG 360  
QY 1430 CGACGATCACCGGGCTTCAGCCCCAGCAGTGTTCCTCAACAGAGTTTCTGTACCAT 1489  
Db 361 CGACGATCACCGGGCTTCAGCCCCAGCAGTGTTCCTCAACAGAGTTTCTGTACCAT 420  
QY 1490 CGCAACGTGCGATCAAGCCGCTGTGTCAGCCATCTTCGACCGCATATTTGCGAGCTG 1549  
Db 421 CGCAACGTGCGATCAAGCCGCTGTGTCAGCCATCTTCGACCGCATATTTGCGAGCTG 480  
QY 1550 AGTGTAAGATGAAGCGCTGAATCTCGACCGACGAGTGTCTGCTGTAAGGCCCATC 1609  
Db 481 AGTGTAAGATGAAGCGCTGAATCTCGACCGACGAGTGTCTGCTGTAAGGCCCATC 540  
QY 1610 ATACTGTACAACCCGAGCATACGCGGGATCAAGAGCCGCGGAGATCGAGATGTGCGC 1669  
Db 541 ATACTGTACAACCCGAGCATACGCGGGATCAAGAGCCGCGGAGATCGAGATGTGCGC 600  
QY 1670 GAGAAGGTGTAGCTTGTCTGACGACGACATGTCGCGCTTGGAAACATCCGGGCGACGATGGA 1729  
Db 601 GAGAAGGTGTAGCTTGTCTGACGACGACATGTCGCGCTTGGAAACATCCGGGCGACGATGGA 660  
QY 1730 CGCTTTGCGCAACTGCTGCTGCGTCTGCCCGCTTTGCGATCGATCAGTCTGAAGTGCCAG 1789  
Db 661 CGCTTTGCGCAACTGCTGCTGCGTCTGCCCGCTTTGCGATCGATCAGTCTGAAGTGCCAG 720  
QY 1790 GATCACCTGTTCTCTTCCGATTAACAGCGACCGGCGCTGTGGAGAGCTCTTTCTCGAG 1849  
Db 721 GATCACCTGTTCTCTTCCGATTAACAGCGACCGGCGCTGTGGAGAGCTCTTTCTCGAG 780

QY 1850 CAGCTGAGGCGCGCGCCACCGCGCTGCGGATGAAACTGGAG 1894  
Db 781 CAGCTGAGGCGCGCGCCACCGCGCTGCGGATGAAACTGGAG 825

# RESULT 13

ACC00562  
ID ACC00562 standard; DNA; 799 BP.

XX AC ACC00562;

XX 23-JUN-2003 (first entry)

XX Drosophila ultraspiracle protein (CfUSP) EF domain polynucleotide.

XX Ecdysone receptor; BaEcr; pesticide; insect; male sterility; whitefly;  
KW ultraspiracle protein; USP; fruitfly; EF domain; ds.

XX Drosophila melanogaster.

XX W02003027266-A2.

XX 03-APR-2003.

XX 20-FEB-2002; 2002WO-US005234.

XX 26-SEP-2001; 2001US-0325534P.

XX (ROHM) ROHM & HAAS CO.

XX Zhang J, Cress DE, Palli SR, Dhadialla TS;

XX WPI; 2003-342734/32.

XX Novel isolated whitefly (Bemisia argentifolii) ecdysone receptor  
PT polypeptide, useful for screening for molecules e.g., agonist or  
PT antagonist of ecdysone receptor activity in a cell, which are useful as  
PT pesticides.

XX Example 2; Page 80-81; 85pp; English.

XX The invention relates to a whitefly (Bemisia argentifolii) ecdysone  
CC receptor (BaEcr) polypeptide and encoding polynucleotides. The BaEcr  
CC polypeptide and polynucleotides are useful for modulating gene expression  
CC in an ecdysone receptor-based gene expression system, and for identifying  
CC and selecting ligands specific for binding to a ligand-binding domain of  
CC BaEcr, and for identifying and selecting compounds exhibiting specific  
CC binding to the ligand binding domain of BaEcr. Agonists and antagonists  
CC of BaEcr modulate insect physiology and development, thus modifying the  
CC normal temporal sequence of developmental agents in an insect. For  
CC example, accelerating insect development can be achieved for instance in  
CC producing sterile males. Alternatively, it may be useful slow development  
CC in pest infestation, such that the insects reach destructive stages of  
CC development only after commercial crops may have passed sensitive stages.  
CC The agonists and antagonists are also useful for artificially maintaining  
CC insects in a specific developmental stage. The present sequence  
CC represents a Drosophila ultraspiracle protein (dUSP) EF domain encoding  
CC polynucleotide, used in the construction of whitefly BaEcr gene  
CC expression cassettes

XX Sequence 799 BP; 154 A; 241 C; 250 G; 154 T; 0 U; 0 Other;

Query Match 32.1%; Score 799; DB 8; Length 799;  
Best Local Similarity 100.0%; Pred. No. 8.6e-168;  
Matches 799; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1099 CATAGAGCGCGAGCGAGCGAGACCCCAATGCGGCGATCGTGCACTGACGTTCTCTGCG 1158  
Db 1 CATAGAGCGCGAGCGAGCGAGACCCCAATGCGGCGATCGTGCACTGACGTTCTCTGCG 60

QY 1159 CGTTGGTCCCTATTCCACAGTCCAGCCGCGACTCAAGGGTGCCTGTGCGCCCTGTGCCA 1218  
|||||

Db 61 CGTGGTCCCTATTCCACAGTCAGCCGGACTACAAGGGTGCCTGTCGGCCCTGTGCCA 120  
Qy 1219 AGTGGTCAACAAACAGCTCTTCCAGATGGTCCGAATACGGCGCATGATCGCGCAGCTTTGC 1278  
Db 121 AGTGGTCAACAAACAGCTCTTCCAGATGGTCCGAATACGGCGCATGATCGCGCAGCTTTGC 180  
Qy 1279 CAGGTGCCGCTGGACAGCAGGTGATTCCTGCTGAAAGCCGCTTGGATCGAGCTGCTCAT 1338  
Db 181 CCAGGTGCCGCTGGACAGCAGGTGATTCCTGCTGAAAGCCGCTTGGATCGAGCTGCTCAT 240  
Qy 1339 TCGAAACGTGGCTGGTGGTGGATCGTTCCTGCTGATGACGGCGTCCGCGGGGG 1398  
Db 241 TCGAAACGTGGCTGGTGGTGGATCGTTCCTGCTGATGACGGCGTCCGCGGGGG 300  
Qy 1399 CGGTGGACTAGGCCAGATGGCTCTTTGAGGACGATCACCGGGCTTTAGCCCCAGCA 1458  
Db 301 CGGTGGACTAGGCCAGATGGCTCTTTGAGGACGATCACCGGGCTTTAGCCCCAGCA 360  
Qy 1459 GCTGTTCTCAACAGAGCTTCTGCTGATCCATCGCAACAGTGGATCAAAAGCCGGTGTGC 1518  
Db 361 GCTGTTCTCAACAGAGCTTCTGCTGATCCATCGCAACAGTGGATCAAAAGCCGGTGTGC 420  
Qy 1519 AGCCATCTTCGACCGCATATTGTCGAGCTGAGTGTAAAGATGAAGCGCTGAATCTGA 1578  
Db 421 AGCCATCTTCGACCGCATATTGTCGAGCTGAGTGTAAAGATGAAGCGCTGAATCTGA 480  
Qy 1579 CCGAGCGGAGCTGTCTGCTGAAAGGCCATCATCTGTACAAACCGGACATACGGGGAT 1638  
Db 481 CCGAGCGGAGCTGTCTGCTGAAAGGCCATCATCTGTACAAACCGGACATACGGGGAT 540  
Qy 1639 CAAAGCCGGGCGGAGATCGAGATGTGCGGAGAGTGTATACGTTGCTCGACGAGCA 1698  
Db 541 CAAAGCCGGGCGGAGATCGAGATGTGCGGAGAGTGTATACGTTGCTCGACGAGCA 600  
Qy 1699 CTGCGCCTGGAACATCCGGCGGAGATCGAGCTGTCGGAGCTGAGTGTAAAGATGAAGCGCTGCTGCTGCC 1758  
Db 601 CTGCGCCTGGAACATCCGGCGGAGATCGAGCTGTCGGAGCTTTGCGCACTGCTGCTGCTGCC 660  
Qy 1759 CGCTTTGCGATCGATCAGCTCAGCTCAAGTGCAGGATCACCTGTTCTCTTCCGATTTACCA 1818  
Db 661 CGCTTTGCGATCGATCAGCTCAGCTCAGTGTCCAGGATCACCTGTTCTCTTCCGATTTACCA 720  
Qy 1819 CGACCGCGCTGGAGAGCTCTTTCTCGAGCAGCTGGAGGCGCGCGCCGCCACCGGCT 1878  
Db 721 CGACCGCGCTGGAGAGCTCTTTCTCGAGCAGCTGGAGGCGCGCGCGCCGCCACCGGCT 780  
Qy 1879 GCGGATGAAGTGGAGTAG 1897  
Db 781 GCGGATGAAGTGGAGTAG 799

RESULT 14  
ACC71950  
ID ACC71950 standard; DNA; 799 BP.  
XX  
AC ACC71950;  
XX  
DT 04-AUG-2003 (first entry)  
XX  
DE D. melanogaster ultraspiracle protein (DMUSP) EF domain DNA.  
XX  
KW EcR; NcEcR; leafhopper; ecdysone receptor; homopteran; insecticide;  
XX gene expression; ultraspiracle protein; USP; EF domain; ds.  
XX  
OS Drosophila melanogaster.  
XX  
FN WO2003027289-A1.  
XX  
PD 03-APR-2003.  
XX  
PF 20-FEB-2002; 2002WO-US005026.  
XX  
PR 26-SEP-2001; 2001US-0325096P.

XX (ROHM ) ROHM & HAAS CO.  
XX Palli SR;  
XX WPI; 2003-481913/45.  
XX  
XX Novel isolated leafhopper ecdysone receptor polypeptide from homopteran  
XX green leafhopper e.g. Nephrotetix cincticeps, for identifying molecules  
XX that modulate receptor activity and in insecticide discovery.  
XX  
XX Example 2; Page 76; 8lpp; English.  
XX  
XX The invention relates to an isolated leafhopper ecdysone receptor  
XX polypeptide (NcEcR) from the homopteran green leafhopper (Nephrotetix  
XX cincticeps) and encoding polynucleotide. The NcEcR polypeptide, and  
XX polynucleotide and vectors comprising the polynucleotide are useful in  
XX the field of gene expression and insecticide discovery. The NcEcR  
XX polypeptide and polynucleotide are useful for regulating gene expression  
XX of a polypeptide of interest in a host cell and in identifying new  
XX molecules that modulate activity of a leafhopper ecdysone receptor (EcR).  
XX Specific antibodies are useful as a reagent for determining qualitative  
XX or quantitative presence of the receptor and to separate or purify the  
XX receptor. A composition comprising NcEcR polypeptide, polynucleotide and  
XX vectors are useful for formulation of biological material for use in a  
XX gene expression modulation system or a ligand-screening assay. Sequences  
XX ACC71949-51 represent polynucleotides encoding the EF domains of the  
XX ultraspiracle protein (USP) from various species  
XX  
XX Sequence 799 BP; 154 A; 241 C; 250 G; 154 T; 0 U; 0 Other;  
XX  
XX Query Match 32.1%; Score 799; DB 9; Length 799;  
XX Best Local Similarity 100.0%; Pred. No. 8.6e-168;  
XX Matches 799; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
XX  
Qy 1099 CATAGAGCCGAGCAGCGAGCGGAGACCCAAATGGCGCATCGTCACTGACGTTCCTGCG 1158  
Db 1 CATAGAGCCGAGCAGCGAGCGGAGACCCAAATGGCGCATCGTCACTGACGTTCCTGCG 60  
Qy 1159 CGTTGGTCCCTATTCCACAGTCCAGCGGACTACAGGGTGCCTGTCGGCCCTGTGCCA 1218  
Db 61 CGTTGGTCCCTATTCCACAGTCCAGCGGACTACAGGGTGCCTGTCGGCCCTGTGCCA 120  
Qy 1219 AGTGGTCAACAAACAGCTCTTCCAGATGGTTCGAATACGCGCGCATGATGCGCAGCTTTGC 1278  
Db 121 AGTGGTCAACAAACAGCTCTTCCAGATGGTTCGAATACGCGCGCATGATGCGCAGCTTTGC 180  
Qy 1279 CCAGGTGCCGCTGGACGACCCAGGTGATTCCTGCTGAAAGCCGCTTGGATCGAGCTGCTCAT 1338  
Db 181 CCAGGTGCCGCTGGACGACCCAGGTGATTCCTGCTGAAAGCCGCTTGGATCGAGCTGCTCAT 240  
Qy 1339 TCGGAAAGTGGCTGGTGGTGGATCGTTCCTGCTGATGACGGCGTCCGCGGGGG 1398  
Db 241 TCGGAAAGTGGCTGGTGGTGGATCGTTCCTGCTGATGACGGCGTCCGCGGGGG 300  
Qy 1399 CGGTGGACTAGGCCAGATGGCTCTTTGAGGACGATCACCGGGCTTTAGCCCCAGCA 1458  
Db 301 CGGTGGACTAGGCCAGATGGCTCTTTGAGGACGATCACCGGGCTTTAGCCCCAGCA 360  
Qy 1459 GCTGTTCTCAACAGAGCTTCTGCTACCATCGCAACAGTGGATCAAAAGCCGGTGTGC 1518  
Db 361 GCTGTTCTCAACAGAGCTTCTGCTACCATCGCAACAGTGGATCAAAAGCCGGTGTGC 420  
Qy 1519 AGCCATCTTCGACCGCATATTGTCGAGCTGAGTGTAAAGATGAAGCGCTGAATCTGA 1578  
Db 421 AGCCATCTTCGACCGCATATTGTCGAGCTGAGTGTAAAGATGAAGCGCTGAATCTGA 480  
Qy 1579 CCGAGCGGAGCTGTCTGCTGAAAGGCCATCATCTGTACAAACCGGACATACGGGGAT 1638  
Db 481 CCGAGCGGAGCTGTCTGCTGAAAGGCCATCATCTGTACAAACCGGACATACGGGGAT 540  
Qy 1639 CAAAGCCGGGCGGAGATCGAGATGTGCGGAGAGTGTATACGTTGCTCGACGAGCA 1698  
XX

Db 541 CAAGAGCGGCGGAGATCGAGATGTGCGCGAGAGGTGTACGTTGCTGGAGGAGCA 600  
Qy 1699 CTGCGGCTGGAACATCCGGCGGACGATGGAGCGCTTTTCGCAACTGCTGCTGCTGCC 1758  
Db 601 CTGCGGCTGGAACATCCGGCGGACGATGGAGCGCTTTTCGCAACTGCTGCTGCTGCC 660  
Qy 1759 GCGTTTGGATCGATCAGCCTGAAAGTGCAGGATCACCTGTTCTCTTCCGCATTACGAG 1818  
Db 661 GCGTTTGGATCGATCAGCCTGAAAGTGCAGGATCACCTGTTCTCTTCCGCATTACGAG 720  
Qy 1819 CGACGGCGGCTGAGGAGCTTTTCGACAGCTGGAGCGCGCGCCACCCGGCCT 1878  
Db 721 CGACGGCGGCTGAGGAGCTTTTCGACAGCTGGAGCGCGCGCCACCCGGCCT 780  
Qy 1879 GCGGATGAACTGGAGTAG 1897  
Db 781 GCGGATGAACTGGAGTAG 799  
  
RESULT 15  
AAF32133  
ID AAF32133 standard; cDNA; 1536 BP.  
XX AC AAF32133;  
XX 10-APR-2001 (first entry)  
XX L cuprina USP subunit coding sequence SEQ ID NO: 7.  
DE Insect; steroid hormone receptor; juvenile hormone receptor; fly;  
XX Ecr subunit; USP subunit; insecticide; ss.  
XX Lucilia cuprina.  
XX WO200102436-A1.  
XX 11-JAN-2001.  
XX 30-JUN-2000; 2000WO-AU000799.  
XX 01-JUL-1999; 99US-00346470.  
XX (CSIR ) COMMONWEALTH SCI & IND RES ORG.  
XX Hill RJ, Hannan GN;  
XX WPI; 2001-080981/09.  
XX P-PSDB; AAB67099.  
XX New nucleic acid molecule for the regulation of gene expression in  
PT insects.  
XX Claim 22; Page 130-132; 172pp; English.  
XX The present invention provides the protein and coding sequences of the  
CC Bemisia tabaci (Silverleaf whitefly), Myzus persicae (aphid) and Lucilia  
CC cuprina (sheep blowfly) steroid and juvenile hormone steroid receptor  
CC subunits Ecr and USP. These can be used to screen for agents with  
XX insecticidal activity  
SQ Sequence 1536 BP; 442 A; 326 C; 361 G; 407 T; 0 U; 0 Other;  
  
Query Match 19.6%; Score 488.6; DB 4; Length 1536;  
Best Local Similarity 64.3%; Pred. No. 1.9e-98;  
Matches 796; Conservative 0; Mismatches 384; Indels 57; Gaps 2;  
  
Qy 627 CAGTCCAGCAGGATCCGCTAACCATCCGCTCAGCGGAGCAAGCACCTCTGCTCTA 686  
Db 347 CACAACAGCAGGATTCACCAATACCCCTTAGTGGTTCGAAACACTTGTGTCCA 406  
Qy 687 TTTGCGGGATCGGCGCAGTGCAAGCACTAGCGGCTGTACAGCTGTGAGGGCTGCAAG 746  
Db 407 TTTGTGGAGACCGCGCCAGTGGAAACATTATTGGGGTCTACAGTTGTGAGGGTGTAAAG 466

Qy 747 GCTTCTTTAAACGACAGTGCAGGATCTCACATACGCTTTCGAGGAGAAACGCAACT 806  
Db 467 GGTTCCTCAAACGTACCGTACGCAAGGACTTGCATATGCTTTCGTGAGGACAGAATT 526  
Qy 807 GCATCATAGACAAGCGGCGAGAGAAACCGCTCCAGTACTGCCCGCTACCAAGATGCTAA 866  
Db 527 GCATTTAGATAAACGACAAAGAAATCGTTGGCCAGTATTCGTGTTATCAAAAGTGTTAG 586  
Qy 867 CTTGCGGCATGAAGCGGAGCGGCTCCAGGAGGCGTCAACGGGCGCGGCAATCGG 926  
Db 587 CTTTGTGCGCATGAACCGGAGCGGCTCCAGAGGAAACGACAAACGCTGCTGCTGCTA 646  
Qy 927 CGGTAGGCTCAGCGCGAGCGGAGGCGGAGTAGCGGTCCAGGTTCCGTAGGCGGATCCA 986  
Db 647 ACGCTA-----GAGCTG 658  
Qy 987 GCTCTCAAGCGGAGGAGGAGGCGGCGCTTTCTGGCGAAATGGGAGCGGCAACCGTT 1046  
Db 659 CTGCTGCTGCGGCTGGTGGAGGAGGTGGTGGGGTAAGCAATGTGGTTGGTCTGGCG 718  
Qy 1047 CTGATGATTCATGACCAATAGCGTGTCCAGGAGTTTCTCGATCGAGCGCATATAGG 1106  
Db 719 GAGAAGACTTTAAACCCAGCAGTTCACTACGTGATCTCACTATAGAAACGATCAATTGAG 778  
Qy 1107 CCGAGCAGCGAGCGGAGACCAATGCGGCGATCGTGCACTGACGTTCTCTCGCGCTTGGTC 1166  
Db 779 CCGAGCAAAAGGCTGAATCTTTGAGCGGTGATACGCTGTGGCCCTTTTGGCGGTGGCA 838  
Qy 1167 CCTATTCCACAGTCCAGCGGACTACAAAGGTGCGGTGTCGGGCCCTGTGCAAGTGTGCA 1226  
Db 839 ACAATTCATGTTAGAACGACTACAAAGCGCGGTATCTCATCTCTGCGCAGATGGTTA 898  
Qy 1227 ACAAACAGCTCTTCAGATCGTGAATACGCGGCGCATGATGCCGACATTTGCCCGAGTGC 1286  
Db 899 ACAAACAACTCTACCAATGGTTGAATATGCACGTTCGAACACCAACATTTTACACATTTGC 958  
Qy 1287 CGCTGGACGACGAGTGATTTCTGCTGAAACCGCTTGGATCGAGCTCTCATTTCCGAAACG 1346  
Db 959 AGCTGAGGATCAGATACATACTATTGTTAAAGCTGGCTGGATGAATGCTTAATTCGAATG 1018  
Qy 1347 TGGCTGCTGTCAGCATCGTTTCGCTGGATCAGCGCGGTGCGGCGCGGGCGGCGGTGGAC 1406  
Db 1019 TTGCTGCTGTCAGTATTGAGTCTCTGGATGCGGAATATGCG-----TCTCTGGTA 1069  
Qy 1407 TAGCCACGATGCTCCTTTGAGGCGAGCATCACCGGCGCTTCAGCCCGAGCGGTGTTCC 1466  
Db 1070 CGGTACATGACGGTTCTTTTGGTGGCGGTTTCCAGGTGCGTACGCCCCCAACACTCTTCC 1129  
Qy 1467 TCACACGAGCTTCTCGTACCATCGCAACAGTGGATCAAAAGCGGTGTGTTCAGCCATCT 1526  
Db 1130 TTAATCAGAAATTTCTCGTATCATCGCAATAGTGTATTTAAGGCCAATGTTGTTTCAATTT 1189  
Qy 1527 TCGAACCGCATATTTGTCGGAGCTGAGTGTAAAGTGAAGCGGCTGAATCTCGACCGAGCG 1586  
Db 1190 TCGATGCTATCTCTCGGAGTTGAGCATCAAAATGAAACGCTTTAAACATCGATCGCTCGG 1249  
Qy 1587 AGCTGCTGCTGTTGAAGCCCATCATCTGTACAAACCGGACATACGCGGATCAAGAGCC 1646  
Db 1250 AGTTGCTGTGCTGAAGGCAATCATCTCTTCAATCCAGACATACGCGGCTCTGAAATGTC 1309  
Qy 1647 GGGCGGAGATCGAGATGTCGCGGAGAAAGTGTACGCTTGCCTGGAGGACACTTCCCGCC 1706  
Db 1310 GAGCCGAGCTCGAGGATGTCGTGAAAAAATCTATGCTGTCTGGAAGACACTTCCCGCA 1369  
Qy 1707 TGGAACTCCCGGGCGACGATGGACGCTTTGGCAACTGCTGCTGCTGCTGCCCGTTGTC 1766  
Db 1370 CAGAACTCCAGGTGATGTCGCGCTTTGCTCAGCTACTACTAAAGTTGTCGCGCATTTGC 1429  
Qy 1767 GATCGATCAGCTGAAAGTGCAGGATCACCTGTTCTCTTCGCAATTACCAAGCCACGCG 1826  
Db 1430 GTTCATCAGTCTCAAAATGCTCGATCATTTGTTTTTTTCTCCGTTTAAATAGCGGCAAGAG 1489



Search completed: May 22, 2006, 02:19:46  
Job time : 1428 secs

**This Page Blank (uspto)**

GenCore version 5.1.8  
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OM protein - protein search, using sw model

Run on: May 20, 2006, 13:46:20 ; Search time 197 Seconds  
(without alignments)  
1179.015 Million cell updates/sec

Title: US-10-719-024-2

Perfect score: 2666  
Sequence: 1 MNCQODASFRLSHKEVK.....ELFLQLAPPPGGLAMKLE 508

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 2589679 seqs, 457216429 residues

Total number of hits satisfying chosen parameters: 2589679

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database :

A\_Geneseq.8:\*  
1: geneseqp1980s:\*  
2: geneseqp1990s:\*  
3: geneseqp2000s:\*  
4: geneseqp2001s:\*  
5: geneseqp2002s:\*  
6: geneseqp2003as:\*  
7: geneseqp2003bs:\*  
8: geneseqp2004s:\*  
9: geneseqp2005s:\*  
10: geneseqp2006s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2666	100.0	508	4	ABR60596
2	2666	100.0	508	9	ADY61075
3	2666	100.0	508	9	ABR53799
4	2661	99.8	508	9	ADY61100
5	2661	99.8	508	9	ADY61112
6	2661	99.8	508	9	ADY61098
7	2661	99.8	508	9	ADY61097
8	2660	99.8	508	9	ADY61111
9	2659	99.7	508	9	ADY61110
10	2658	99.7	508	9	ADY61101
11	2657	99.7	508	9	ADY61109
12	2656	99.6	508	9	ADY61099
13	2656	99.6	508	9	ADY61103
14	2656	99.6	508	9	ADY61102
15	2655	99.6	508	9	ADY61113
16	2646	99.2	508	9	ADY61108
17	2646	99.2	508	9	ADY61104
18	2634	98.8	508	9	ADY61106
19	2634	98.8	508	9	ADY61105
20	2624	98.4	508	9	ADY61107
21	2429	91.1	513	2	AAR14304
22	2429	91.1	513	2	AAR48065
23	2429	91.1	513	2	AAW18876

24	2429	91.1	513	2	AAW31320	AAW31320 D. melano
25	1728.5	64.8	467	4	AAAB67097	AAAB67097 L. cuprina
26	1728.5	64.8	467	4	AAAB67098	AAAB67098 L. cuprina
27	1728.5	64.8	467	4	AAAB67099	AAAB67099 L. cuprina
28	1609.5	60.4	458	2	AAAY28604	AAAY28604 L. cuprin
29	1309.5	49.1	448	6	ABU67310	ABU67310 Flea ultr
30	1309.5	49.1	448	6	ABU67309	ABU67309 Flea ultr
31	1309.5	49.1	448	6	ADU48276	ADU48276 Ctenoceph
32	1309.5	49.1	448	8	ADU48279	ADU48279 Ctenoceph
33	1309.5	49.1	474	6	ABU67311	ABU67311 Flea ultr
34	1309.5	49.1	474	6	ABU67312	ABU67312 Flea ultr
35	1309.5	49.1	474	8	ADU48285	ADU48285 Ctenoceph
36	1309.5	49.1	474	8	ADU48282	ADU48282 Ctenoceph
37	1097.5	41.2	460	3	AAAY87471	AAAY87471 European
38	1096.5	41.1	472	4	AAU10279	AAU10279 Spruce bu
39	1073.5	40.3	420	6	AAE30111	AAE30111 Heliothis
40	1071.5	40.2	466	5	ABR08661	ABR08661 Heliothis
41	1071.5	40.2	466	5	ABR08673	ABR08673 Heliothis
42	1058.5	39.7	467	8	ADR48590	ADR48590 Protein s
43	1058.5	39.7	490	8	ADR48552	ADR48552 Molting h
44	1000	37.5	496	4	AAAB67107	AAAB67107 B tabaci
45	985	36.9	462	6	AAO30082	AAO30082 Human ret

ALIGNMENTS

RESULT 1  
ID ABR60596  
ABR60596 standard; protein; 508 AA.  
XX  
AC ABR60596;  
XX  
DT 26-MAR-2002 (first entry)  
XX  
DE Drosophila melanogaster polypeptide SEQ ID NO 8580.  
XX  
KW Drosophila; developmental biology; cell signalling; insecticide;  
XX pharmaceutical.  
XX  
OS Drosophila melanogaster.  
XX  
PN WO200171042-A2.  
XX  
PD 27-SEP-2001.  
XX  
PF 23-MAR-2001; 2001WO-US009231.  
XX  
PR 23-MAR-2000; 2000US-0191637P.  
XX  
PR 11-JUL-2000; 2000US-00614150.  
XX  
PA (PERK) PE CORP NY.  
XX  
PI Venter JC, Adams M, Li PWD, Myers EW;  
XX  
DR MPI: 2001-656860/75.  
XX N-PSDB; ABU04699.  
XX  
PT New isolated nucleic acid detection reagent for detecting 1000 or more  
XX genes from Drosophila and for elucidating cell signaling and cell-cell  
XX interactions.  
XX  
PS Disclosure; SEQ ID NO 8580; 21pp + Sequence Listing; English.  
XX  
CC The invention relates to an isolated nucleic acid detection reagent  
XX capable of detecting 1000 or more genes from Drosophila. The invention is  
XX useful in developmental biology and in elucidating cell signaling and  
XX cell-cell interactions in higher eukaryotes for the development of  
XX insecticides, therapeutics and pharmaceutical drugs. The invention  
XX discloses genomic DNA sequences (ABU16176-ABU30511), expressed DNA  
XX sequences (ABU01840-ABU16175) and the encoded proteins (ABBS7737-  
XX ABBS72072). The sequence data for this patent did not form part of the  
XX printed specification, but was obtained in electronic format directly

CC from WIP0 at ftp.wipo.int/pub/published\_pct\_sequences  
XX  
SQ Sequence 508 AA;

Query Match 100.0%; Score 2666; DB 4; Length 508;  
Best Local Similarity 100.0%; Pred. No. 1.5e-201;  
Matches 508; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MDNCDQDASFLSHIKKEVKPDIISQLDNSNNSSFSFKAESPPVPMQAMSMVHLPGNSA 60
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DB 61 SSNNNSAGDAQMAQAPNSAGSAAAVQOQYPPNHPISGSKHLCSICGDRASGKHGYYS 120
QY 121 CEGCKGFPRKRTVRKDLTYACRENRCIIDKQRNRQCYCRYOKCLTCGKKEAVQEEQR 180
DB 121 CEGCKGFPRKRTVRKDLTYACRENRCIIDKQRNRQCYCRYOKCLTCGKKEAVQEEQR 180
QY 181 GARNAGRLSASGGSSGPGSVGSSSQGGGGGGGSGMGSGNSDDPMTNSVSRPSI 240
DB 181 GARNAGRLSASGGSSGPGSVGSSSQGGGGGGGSGMGSGNSDDPMTNSVSRPSI 240
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DB 241 ERITAEQRAETQCGDRALTFRLVGPYSTVQPDYKGAVALCOVYNKQLFQWVEYARMP 300
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DB 301 HPAQVPLDDQVILLKAAWIELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360
QY 361 POQLFLNOSFSYHNSAIKAGVSAIFDRILSELSTYMKRLMDRRELSCLKAIIILYNPDI 420
DB 361 POQLFLNOSFSYHNSAIKAGVSAIFDRILSELSTYMKRLMDRRELSCLKAIIILYNPDI 420
QY 421 RGIKSRARIEMCREKRYVACLDEHCRLHEPGDGRFAQLLLRLPALRSISLKCQDHLFLFR 480
DB 421 RGIKSRARIEMCREKRYVACLDEHCRLHEPGDGRFAQLLLRLPALRSISLKCQDHLFLFR 480
QY 481 ITSDRPLEELFLBQLEAPPPLGLAMKLE 508
DB 481 ITSDRPLEELFLBQLEAPPPLGLAMKLE 508

RESULT 2
ADY61075 standard; protein; 508 AA.
XX ID ADY61075 standard; protein; 508 AA.
XX AC ADY61075;
XX DT 19-MAY-2005 (first entry)
XX DE D melanogaster ultraespirlacle (USP) wild-type protein Segid2.
XX KM protein engineering; hormone; pesticide; pharmaceutical; plant pest;
XX ultraespirlacle; USP.
XX OS Drosophila melanogaster.
XX PN US200504569-A1.
XX PD 10-MAR-2005.
XX PF 24-NOV-2003; 2003US-00719024.
XX PR 22-NOV-2002; 2002US-0428282P.
XX PA (JONE/) JONES G.
XX PI (JONE/) JONES D.
XX PT Jones G, Jones D;
XX
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DR WPI; 2005-221953/23.  
XX N-PSDB; ADY61074.  
XX PT New mutant hormone receptor nucleic acids useful in the fields of drug  
XX PT discovery and pest control, in particular for identifying chemical  
XX PT compounds in activating or blocking particular hormone-dependent pathways  
XX PT in various organisms.  
XX PS Claim 1, SEQ ID NO 2; 35pp; English.

This invention relates to novel mutant nuclear hormone receptors and the  
CC DNA sequences which encode them. The invention may be useful for the  
CC development of compounds with a pesticide activity acting as hormone  
CC receptor agonists or antagonists. The methods and compositions of the  
CC present invention are useful in the fields of drug discovery and pest  
CC control, in particular for providing biochemical tools and assays to  
CC identify ligands of nuclear hormone receptors and identifying a pest  
CC control agent. The present sequence is that of the D melanogaster  
CC ultraespirlacle (USP) wild-type protein which was used during the  
CC development of the novel mutant nuclear hormone receptors of the  
CC invention.

Query Match 100.0%; Score 2666; DB 9; Length 508;  
Best Local Similarity 100.0%; Pred. No. 1.5e-201;  
Matches 508; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 61 SSNNNSAGDAQMAQAPNSAGSAAAVQOQYPPNHPISGSKHLCSICGDRASGKHGYYS 120
DB 61 SSNNNSAGDAQMAQAPNSAGSAAAVQOQYPPNHPISGSKHLCSICGDRASGKHGYYS 120
QY 121 CEGCKGFPRKRTVRKDLTYACRENRCIIDKQRNRQCYCRYOKCLTCGKKEAVQEEQR 180
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DB 241 ERITAEQRAETQCGDRALTFRLVGPYSTVQPDYKGAVALCOVYNKQLFQWVEYARMP 300
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DB 301 HPAQVPLDDQVILLKAAWIELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360
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DB 361 POQLFLNOSFSYHNSAIKAGVSAIFDRILSELSTYMKRLMDRRELSCLKAIIILYNPDI 420
QY 421 RGIKSRARIEMCREKRYVACLDEHCRLHEPGDGRFAQLLLRLPALRSISLKCQDHLFLFR 480
DB 421 RGIKSRARIEMCREKRYVACLDEHCRLHEPGDGRFAQLLLRLPALRSISLKCQDHLFLFR 480
QY 481 ITSDRPLEELFLBQLEAPPPLGLAMKLE 508
DB 481 ITSDRPLEELFLBQLEAPPPLGLAMKLE 508
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RESULT 3  
AEB53799 standard; protein; 508 AA.  
XX ID AEB53799 standard; protein; 508 AA.  
XX AC AEB53799;  
XX DT 06-OCT-2005 (first entry)  
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DE Drosophila nuclear receptor #14.  
 XX Insecticide; pesticide; toxin; nuclear receptor; receptor.  
 XX Drosophila melanogaster.  
 OS WO2005069859-A2.  
 PN  
 XX 04-AUG-2005.  
 PD  
 XX 13-JAN-2005; 2005WO-US001218.  
 PF  
 XX 13-JAN-2004; 2004US-0536337P.  
 PR  
 XX (UTAH ) UNIV UTAH RES FOUND.  
 PA  
 XX Thummel CS, King-Jones K, Horner M, Lam G;  
 PI WPI; 2005-555376/56.  
 DR N-PSDB; AEB53800.  
 XX  
 XX Composition useful for increasing effect of existing toxins to control  
 PT insects, and for inhibiting insect growth, comprises inhibitor of DHR96  
 PT activity, and optionally pesticide.  
 XX  
 XX Disclosure; SEQ ID NO 27; 211pp; English.  
 PS  
 XX The invention relates to a composition comprising an inhibitor of DHR96  
 CC activity and optionally a pesticide. The invention also relates to an  
 CC insect comprising a gene, where the gene comprises a non-naturally  
 CC occurring mutation in the DHR96 gene, a method of enhancing the effect a  
 CC pesticide has on an insect involving administering to the insect an  
 CC inhibitor of DHR96 activity, a method of identifying an inhibitor of  
 CC DHR96 activity involving testing compounds for inhibiting activity of  
 CC DHR96 and/or inhibition of xenobiotic activity and comparing the activity  
 CC of these compounds to known inhibitors of DHR96, a method of producing a  
 CC composition for inhibiting DHR96 activity involving admixing the  
 CC inhibitor with a pesticide and a composition produced by the method. The  
 CC composition and method are useful for enhancing the effect a pesticide  
 CC has on an insect, for identifying an inhibitor of DHR96 activity, for  
 CC identifying ligands for DHR96 and for producing a composition for  
 CC inhibiting DHR96 activity. The composition is useful for regulating  
 CC DHR96, preferably for inhibiting DHR96 gene expression or activity and  
 CC for increasing the effect of existing toxins or pesticides e.g., DDT to  
 CC control insects. The composition is useful for controlling insects e.g.,  
 CC silverfish, Dragonflies, Stoneflies, beetles, fleas, ants, bees, wasps,  
 CC termites etc. and decreases the resistance exhibited by the insects with  
 CC respect to toxins or pesticides. This sequence represents a Drosophila  
 CC nuclear receptor used in the scope of the invention.  
 CC  
 XX Sequence 508 AA;  
 SQ  
 Query Match 100.0%; Score 2666; DB 9; Length 508;  
 Best Local Similarity 100.0%; Pred. No. 1.5e-201;  
 Matches 508; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
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 Db 1 MDNCDODASFRLSHKEEYKPIISQINDSNSSFSFKAESPPYFMQAMSMYVULRGNSNA 60  
 Oy 61 SSNNNSAGDQWQAOPNSAGSAAAVQOQYPPNPLSGSKILCSICGDRASGKHGYVS 120  
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 Oy 121 CEGCGFFRRTYRKLTLTAACRNRCIIDKQRANCQYCRVYKCLTCGKREAVQEEQR 180  
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Db 241 ERIIEAEGRAETQCGBRALTFPLRVGPYSTVQPDYKGAVALCQVNNKQLFQWVEYARBMMP 300  
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 Db 361 POOLFANOSFSYHRNSAIKAGVSALFDRIITSELSYMKRLNDRBELSGLKAIITLYNPI 420  
 Oy 421 RGIKSRABIEMCREKYVACLDEHCRLEHGGDGRFAQLLRLPALRSISLKCQDHLFLPR 480  
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 Oy 481 ITSDRPLEELFLEQLAAPPPLGAMKLR 508  
 Db 481 ITSDRPLEELFLEQLAAPPPLGAMKLR 508  
 RESULT 4  
 ADY61100  
 ID ADY61100 standard; protein; 508 AA.  
 AC ADY61100;  
 XX  
 DT 19-MAY-2005 (first entry)  
 XX  
 DE D melanogaster ultraspiracle (USP) F302W mutant protein #4.  
 XX  
 XX protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
 KW ultraspiracle; USP; mutant; mutein.  
 XX  
 OS Drosophila melanogaster.  
 OS Synthetic.  
 FH  
 FT Key Location/Qualifiers  
 FT Misc-difference 302  
 FT /note= "Wild-type Phe replaced by Trp"  
 XX  
 PN US2005054569-A1.  
 XX  
 PD 10-MAR-2005.  
 XX  
 PP 24-NOV-2003; 2003US-00719024.  
 XX  
 PR 22-NOV-2002; 2002US-0428282P.  
 XX  
 PA (JONE/) JONES G.  
 PA (JONE/) JONES D.  
 PI Jones G, Jones D;  
 DR WPI; 2005-221953/23.  
 XX  
 PT New mutant hormone receptor nucleic acids useful in the fields of drug  
 PT discovery and pest control, in particular for identifying chemical  
 PT compounds in activating or blocking particular hormone-dependent pathways  
 PT in various organisms.  
 XX  
 PS Claim 4; Page; 35pp; English.  
 XX  
 CC This invention relates to novel mutant nuclear hormone receptors and the  
 CC DNA sequences which encode them. The invention may be useful for the  
 CC development of compounds with a pesticide activity acting as hormone  
 CC receptor agonists or antagonists. The methods and compositions of the  
 CC present invention are useful in the fields of drug discovery and pest  
 CC control, in particular for providing biochemical tools and assays to  
 CC identify ligands of nuclear hormone receptors and identifying a pest  
 CC control agent. The present sequence is that of a mutant form of the D  
 CC melanogaster ultraspiracle (USP) protein which represents a novel mutant  
 CC nuclear hormone receptors of the invention. Note: The present sequence  
 CC was created by the indexer using information given in the claims of the

CC specification.  
 XX Sequence 508 AA;  
 SO Query Match 99.8%; Score 2661; DB 9; Length 508;  
 Best Local Similarity 99.8%; Pred. No. 3.8e-201;  
 Matches 507; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

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 DB 1 MDNCDQDASFRLSHKEEVKPDISQNDNSNSFSPPKESVPPFMOAMSHVYVPGSSA 60  
 DB 61 SSNNNSADDAQMAQAPNSAGSAAAVQOQYPPNPLSGSKHLCISICDPRASGKHGYYS 120  
 QY 121 CEGCKGFFKRTVTKDLYTACRENRCIIDKQRNRCQYCRQKCLTTCMKREAVOEERQ 180  
 DB 121 CEGCKGFFKRTVTKDLYTACRENRCIIDKQRNRCQYCRQKCLTTCMKREAVOEERQ 180  
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 DB 301 HFAQVPLDDQVITLLKAAWIELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360  
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 DB 361 POOLFANOSFSYHRNSAIKAGVSAIFDRILSELVYMKRLINDREBELCLKAIIILYNPDI 420  
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 DB 421 RGKISRRAEIEMKREKYVACLDEHCHLEHPGDGRFAQULLRLPALRSISLKCQDHLFLFR 480  
 QY 481 ITSDRPLEELFLQLEAPPPGLAMKLE 508  
 DB 481 ITSDRPLEELFLQLEAPPPGLAMKLE 508

RESULT 5  
 ADY61112 standard; protein; 508 AA.  
 XX ID ADY61112 standard; protein; 508 AA.  
 XX AC ADY61112;  
 XX DT 19-MAY-2005 (first entry)  
 XX DE D melanogaster ultraespiracle (USP) L366A mutant protein #16.  
 XX protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
 XX ultraespiracle; USP; mutant; mutein.  
 XX Drosophila melanogaster.  
 XX OS Synthetic.  
 XX Key Location/Qualifiers  
 FH MISC-difference 366  
 FT /note= "Wild-type Leu replaced by Ala"  
 XX US2005054569-A1.  
 XX 10-MAR-2005.  
 XX 24-NOV-2003; 2003US-00719024.  
 XX 22-NOV-2002; 2002US-0428282P.  
 XX

PA (JONE/) JONES G.  
 PA (JONE/) JONES D.  
 XX Jones G, Jones D;  
 XX WPI; 2005-221953/23.  
 XX New mutant hormone receptor nucleic acids useful in the fields of drug  
 PT discovery and pest control, in particular for identifying chemical  
 PT compounds in activating or blocking particular hormone-dependent pathways  
 PT in various organisms.  
 XX Claim 20; Page; 35pp; English.  
 XX This invention relates to novel mutant nuclear hormone receptors and the  
 CC DNA sequences which encode them. The invention may be useful for the  
 CC development of compounds with a pesticide activity acting as hormone  
 CC receptor agonists or antagonists. The methods and compositions of the  
 CC present invention are useful in the fields of drug discovery and pest  
 CC control, in particular for providing biochemical tools and assays to  
 CC identify ligands of nuclear hormone receptors and identifying a pest  
 CC control agent. The present sequence is that of a mutant form of the D  
 CC melanogaster ultraespiracle (USP) protein which represents a novel mutant  
 CC nuclear hormone receptor of the invention. Note: The present sequence  
 CC was created by the indexer using information given in the claims of the  
 CC specification.

Sequence 508 AA;  
 SQ Query Match 99.8%; Score 2661; DB 9; Length 508;  
 Best Local Similarity 99.8%; Pred. No. 3.8e-201;  
 Matches 507; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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 DB 1 MDNCDQDASFRLSHKEEVKPDISQNDNSNSFSPPKESVPPFMOAMSHVYVPGSSA 60  
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 DB 421 RGKISRRAEIEMKREKYVACLDEHCHLEHPGDGRFAQULLRLPALRSISLKCQDHLFLFR 480  
 QY 481 ITSDRPLEELFLQLEAPPPGLAMKLE 508  
 DB 481 ITSDRPLEELFLQLEAPPPGLAMKLE 508

RESULT 6  
 ADY61098 standard; protein; 508 AA.  
 ID ADY61098 standard; protein; 508 AA.



```
XX AC ADY61098;
XX DT 19-MAY-2005 (first entry)
XX DE D melanogaster ultraspiracle (USP) F479W mutant protein #2.
XX KM protein engineering; hormone; pesticide; pharmaceutical; plant pest;
XX KM ultraspiracle; USP; mutant; mutein.
XX OS Drosophila melanogaster.
XX OS Synthetic.
FH Key Location/Qualifiers
FT Misc-difference 479
FT /note= "Wild-type Phe replaced by Trp"
XX US2005054569-A1.
XX PN 10-MAR-2005.
XX PD 24-NOV-2003; 2003US-00719024.
XX PF 22-NOV-2002; 2002US-0428282P.
XX PR (JONE/) JONES G.
XX PA (JONE/) JONES D.
XX PI Jones G, Jones D;
XX PI WPI; 2005-221953/23.
XX DR
XX PT New mutant hormone receptor nucleic acids useful in the fields of drug
XX PT discovery and pest control, in particular for identifying chemical
XX PT compounds in activating or blocking particular hormone-dependent pathways
XX PT in various organisms.
XX PS Claim 3; Page; 35pp; English.
XX CC This invention relates to novel mutant nuclear hormone receptors and the
XX CC DNA sequences which encode them. The invention may be useful for the
XX CC development of compounds with a pesticide actively acting as hormone
XX CC receptor agonists or antagonists. The methods and compositions of the
XX CC present invention are useful in the fields of drug discovery and pest
XX CC control, in particular for providing biochemical tools and assays to
XX CC identify ligands of nuclear hormone receptors and identifying a pest
XX CC control agent. The present sequence is that of a mutant form of the D
XX CC melanogaster ultraspiracle (USP) protein which represents a novel mutant
XX CC nuclear hormone receptors of the invention. Note: The present sequence
XX CC was created by the indexer using information given in the claims of the
XX CC specification.
SQ Sequence 508 AA;
Query Match 99.8%; Score 2661; DB 9; Length 508;
Best Local Similarity 99.8%; Pred. No. 3.8e-201;
Matches 507; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
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```
QY 241 ERIIEAQRARETOCGBRALTFLRVGPYSTVOPDYGAVALCOVYNKOLFQWVEYARMP 300
DB 241 ERIIEAQRARETOCGBRALTFLRVGPYSTVOPDYGAVALCOVYNKOLFQWVEYARMP 300
QY 301 HFAQVPLDDQVILTKRAWIELLIANVAVCSIVSLDGGAGGGGGVGHGDSFERSPGIQ 360
DB 301 HFAQVPLDDQVILTKRAWIELLIANVAVCSIVSLDGGAGGGGGVGHGDSFERSPGIQ 360
QY 361 POOLFPLNOSFSYHRNSAIAKAVSAIPDRILSELVYMKRLNDRRELSTLKAIIILNPD 420
DB 361 POOLFPLNOSFSYHRNSAIAKAVSAIPDRILSELVYMKRLNDRRELSTLKAIIILNPD 420
QY 421 RGIKSRRAEIEMCREKYVACIDSEKCLHEPGDGRFAOLLRLPALRSTSLKODHFLMR 480
DB 421 RGIKSRRAEIEMCREKYVACIDSEKCLHEPGDGRFAOLLRLPALRSTSLKODHFLMR 480
QY 481 ITSDRPLEBELPLEQLAAPPPIAMKLE 508
DB 481 ITSDRPLEBELPLEQLAAPPPIAMKLE 508

RESULT 7
ID ADY61097 strand; protein; 508 AA.
XX AC ADY61097;
XX DT 19-MAY-2005 (first entry)
XX DE D melanogaster ultraspiracle (USP) F479W mutant protein #1.
XX KM protein engineering; hormone; pesticide; pharmaceutical; plant pest;
XX KM ultraspiracle; USP; mutant; mutein.
XX OS Drosophila melanogaster.
XX OS Synthetic.
FH Key Location/Qualifiers
FT Misc-difference 477
FT /note= "Wild-type Phe replaced by Trp"
XX US2005054569-A1.
XX PN 10-MAR-2005.
XX PD 24-NOV-2003; 2003US-00719024.
XX PF 22-NOV-2002; 2002US-0428282P.
XX PR (JONE/) JONES G.
XX PA (JONE/) JONES D.
XX PI Jones G, Jones D;
XX PI WPI; 2005-221953/23.
XX DR
XX PT New mutant hormone receptor nucleic acids useful in the fields of drug
XX PT discovery and pest control, in particular for identifying chemical
XX PT compounds in activating or blocking particular hormone-dependent pathways
XX PT in various organisms.
XX PS Claim 2; Page; 35pp; English.
XX CC This invention relates to novel mutant nuclear hormone receptors and the
XX CC DNA sequences which encode them. The invention may be useful for the
XX CC development of compounds with a pesticide actively acting as hormone
XX CC receptor agonists or antagonists. The methods and compositions of the
XX CC present invention are useful in the fields of drug discovery and pest
XX CC control, in particular for providing biochemical tools and assays to
XX CC identify ligands of nuclear hormone receptors and identifying a pest
XX CC control agent. The present sequence is that of a mutant form of the D
XX CC melanogaster ultraspiracle (USP) protein which represents a novel mutant
```

CC nuclear hormone receptors of the invention. Note: The present sequence  
CC was created by the indexer using information given in the claims of the  
CC specification.

XX Sequence 508 AA;

Query Match 99.8%; Score 2661; DB 9; Length 508;

Best Local Similarity 99.8%; Pred. No. 3.8e-201;  
Matches 507; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
QY 1 MDNCDDASFLSHIKEEVKPDISQNDNSNNSFSPKAESEVPMQAMSMWHTVLPGSNSA 60
DB 1 MDNCDDASFLSHIKEEVKPDISQNDNSNNSFSPKAESEVPMQAMSMWHTVLPGSNSA 60
QY 61 SSNNNSAGDAQMAQAPNSAGSSAAAQVQOYPNNHPLSGSKHLSICGDRASGKHVGYYS 120
DB 61 SSNNNSAGDAQMAQAPNSAGSSAAAQVQOYPNNHPLSGSKHLSICGDRASGKHVGYYS 120
QY 121 CEGCKGFPRKRTYRKDLTYACRENRCIIDKQARNRCQYCRYOKCLTCGKREAVQEBRQ 180
DB 121 CEGCKGFPRKRTYRKDLTYACRENRCIIDKQARNRCQYCRYOKCLTCGKREAVQEBRQ 180
QY 181 GARNNAAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVSRDPSI 240
DB 181 GARNNAAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVSRDPSI 240
QY 241 BRITAEQRAETQCGDRALTLFRVGPYSTVQPDYKGAVALCOVNNKOLFQWVEYARAMP 300
DB 241 BRITAEQRAETQCGDRALTLFRVGPYSTVQPDYKGAVALCOVNNKOLFQWVEYARAMP 300
QY 301 HPAQVPLDDQVITLKAAMITELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360
DB 301 HPAQVPLDDQVITLKAAMITELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360
QY 361 PQOLFNGSFYHRNSAIKAGVSAIFDRITSELVYMKRLNDRRELCLKAIILYNPDI 420
DB 361 PQOLFNGSFYHRNSAIKAGVSAIFDRITSELVYMKRLNDRRELCLKAIILYNPDI 420
QY 421 RGIKRAETEMCREKRVYACLDHCHLEHGGDGRFAOLLRLPALRSTSLKCDHLPFLR 480
DB 421 RGIKRAETEMCREKRVYACLDHCHLEHGGDGRFAOLLRLPALRSTSLKCDHLPFLR 480
QY 481 ITSDRPLEBELFLEQLEAPPPLGAMKLE 508
DB 481 ITSDRPLEBELFLEQLEAPPPLGAMKLE 508
```

RESULT 8  
ADY61111  
ID ADY61111 standard; protein; 508 AA.

XX ADY61111;

XX 19-MAY-2005 (first entry)

XX D melanogaster ultraaspiracle (USP) Q288A mutant protein #15.

XX protein engineering; hormone; pesticide; pharmaceutical; plant pest;

XX ultraaspiracle; USP; mutant; mutein.

XX Drosophila melanogaster.

XX Synthetic.

XX Key Location/Qualifiers

XX Misc-difference 288 /note= "Wild-type Gln replaced by Ala"

XX US2005054569-A1.

XX 10-MAR-2005.

XX 24-NOV-2003; 2003US-00719024.

PR 22-NOV-2002; 2002US-0428282P.

XX (JONE/) JONES G.

XX (JONE/) JONES D.

XX Jones G, Jones D;

XX WPI, 2005-221953/23.

XX New mutant hormone receptor nucleic acids useful in the fields of drug

XX discovery and pest control, in particular for identifying chemical

XX compounds in activating or blocking particular hormone-dependent pathways

XX in various organisms.

XX Claim 19; Page; 35pp; English.

XX This invention relates to novel mutant nuclear hormone receptors and the

XX DNA sequences which encode them. The invention may be useful for the

XX development of compounds with a pesticide activity acting as hormone

XX receptor agonists or antagonists. The methods and compositions of the

XX present invention are useful in the fields of drug discovery and pest

XX control, in particular for providing biochemical tools and assays to

XX identify ligands of nuclear hormone receptors and identifying a pest

XX control agent. The present sequence is that of a mutant form of the D

XX melanogaster ultraaspiracle (USP) protein which represents a novel mutant

XX nuclear hormone receptors of the invention. Note: The present sequence

XX was created by the indexer using information given in the claims of the

XX specification.

XX Sequence 508 AA;

XX Query Match 99.8%; Score 2660; DB 9; Length 508;

XX Best Local Similarity 99.8%; Pred. No. 4.6e-201;

XX Matches 507; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MDNCDDASFLSHIKEEVKPDISQNDNSNNSFSPKAESEVPMQAMSMWHTVLPGSNSA 60

DB 1 MDNCDDASFLSHIKEEVKPDISQNDNSNNSFSPKAESEVPMQAMSMWHTVLPGSNSA 60

QY 61 SSNNNSAGDAQMAQAPNSAGSSAAAQVQOYPNNHPLSGSKHLSICGDRASGKHVGYYS 120

DB 61 SSNNNSAGDAQMAQAPNSAGSSAAAQVQOYPNNHPLSGSKHLSICGDRASGKHVGYYS 120

QY 121 CEGCKGFPRKRTYRKDLTYACRENRCIIDKQARNRCQYCRYOKCLTCGKREAVQEBRQ 180

DB 121 CEGCKGFPRKRTYRKDLTYACRENRCIIDKQARNRCQYCRYOKCLTCGKREAVQEBRQ 180

QY 181 GARNNAAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVSRDPSI 240

DB 181 GARNNAAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVSRDPSI 240

QY 241 BRITAEQRAETQCGDRALTLFRVGPYSTVQPDYKGAVALCOVNNKOLFQWVEYARAMP 300

DB 241 BRITAEQRAETQCGDRALTLFRVGPYSTVQPDYKGAVALCOVNNKOLFQWVEYARAMP 300

QY 301 HPAQVPLDDQVITLKAAMITELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360

DB 301 HPAQVPLDDQVITLKAAMITELLIANVAMCSIVSLDDGAGGGGGGLGHDGSPERRSPGLQ 360

QY 361 PQOLFNGSFYHRNSAIKAGVSAIFDRITSELVYMKRLNDRRELCLKAIILYNPDI 420

DB 361 PQOLFNGSFYHRNSAIKAGVSAIFDRITSELVYMKRLNDRRELCLKAIILYNPDI 420

QY 421 RGIKRAETEMCREKRVYACLDHCHLEHGGDGRFAOLLRLPALRSTSLKCDHLPFLR 480

DB 421 RGIKRAETEMCREKRVYACLDHCHLEHGGDGRFAOLLRLPALRSTSLKCDHLPFLR 480

QY 481 ITSDRPLEBELFLEQLEAPPPLGAMKLE 508

DB 481 ITSDRPLEBELFLEQLEAPPPLGAMKLE 508

RESULT 9

ADY61110  
 ID ADY61110 standard; protein; 508 AA.  
 AC ADY61110;  
 XX  
 DT 19-MAY-2005 (first entry)  
 XX  
 DE D melanogaster ultraspiracle (USP) V293R mutant protein #14.  
 XX  
 KW protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
 KM ultraspiracle; USP; mutant; mutein.  
 XX  
 OS Drosophila melanogaster.  
 OS Synthetic.  
 XX  
 FH Key Location/Qualifiers  
 FT Misc-difference 293 /note="Wild-type Val replaced by Arg"  
 XX  
 PN US2005054569-A1.  
 XX  
 PD 10-MAR-2005.  
 XX  
 PF 24-NOV-2003; 2003US-00719024.  
 XX  
 PR 22-NOV-2002; 2002US-0428282P.  
 XX  
 PA (JONE/) JONES G.  
 PA (JONE/) JONES D.  
 XX  
 PI Jones G, Jones D;  
 XX  
 DR WPI: 2005-221953/23.  
 XX  
 PT New mutant hormone receptor nucleic acids useful in the fields of drug  
 PT discovery and pest control, in particular for identifying chemical  
 PT compounds in activating or blocking particular hormone-dependent pathways  
 PT in various organisms.  
 XX  
 PS Claim 18; Page; 35pp; English.  
 XX  
 CC This invention relates to novel mutant nuclear hormone receptors and the  
 CC DNA sequences which encode them. The invention may be useful for the  
 CC development of compounds with a pesticide activity acting as hormone  
 CC receptor agonists or antagonists. The methods and compositions of the  
 CC present invention are useful in the fields of drug discovery and pest  
 CC control, in particular for providing biochemical tools and assays to  
 CC identify ligands of nuclear hormone receptors and identifying a pest  
 CC control agent. The present sequence is that of a mutant form of the D  
 CC melanogaster ultraspiracle (USP) protein which represents a novel mutant  
 CC nuclear hormone receptors of the invention. Note: The present sequence  
 CC was created by the indexer using information given in the claims of the  
 CC specification.  
 CC  
 XX  
 SQ Sequence 508 AA;  
 XX  
 Query Match 99.7%; Score 2659; DB 9; Length 508;  
 Best Local Similarity 99.8%; Pred. No. 5.5e-201;  
 Matches 507; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
 QY 1 MDNCQDASFLSHKEVKPDISQANDSNSSFPSPKASPPVFMQAMSMVTLPGNSNA 60  
 DB 1 MDNCQDASFLSHKEVKPDISQANDSNSSFPSPKASPPVFMQAMSMVTLPGNSNA 60  
 QY 61 SSNNNSADDAQMAQAPNSAGSAAAAYVOQYPPNHPLSGSKHLCSICDDRASGKHGYYS 120  
 DB 61 SSNNNSADDAQMAQAPNSAGSAAAAYVOQYPPNHPLSGSKHLCSICDDRASGKHGYYS 120  
 QY 121 CEGCKGPFKRTYRKULTYACRENRCIIDKQBNRCQYCRYOKCLTCGAKKEAVGEERQR 180  
 DB 121 CEGCKGPFKRTYRKULTYACRENRCIIDKQBNRCQYCRYOKCLTCGAKKEAVGEERQR 180  
 QY 181 GARNAGRLSASGGSSGPGSVGSSSQCGGGGSGVSGMGSGNGSDDFMTNVSVRDPSI 240

DB 181 GARNAGRLSASGGSSGPGSVGSSSQCGGGGSGVSGMGSGNGSDDFMTNVSVRDPSI 240  
 QY 241 ERIIEAEOQAEVQCCDRALTFLRVGPYSTVQPDYGAVSALCOVYNKQLFQWETARKMP 300  
 DB 241 ERIIEAEOQAEVQCCDRALTFLRVGPYSTVQPDYGAVSALCOVYNKQLFQWETARKMP 300  
 QY 301 HPAQVPLDDQVILLRAAMTELLIANVAMCSIVSLDDGGAGGGGGGLGHDSFERRSPGLQ 360  
 DB 301 HPAQVPLDDQVILLRAAMTELLIANVAMCSIVSLDDGGAGGGGGGLGHDSFERRSPGLQ 360  
 QY 361 POOLFANOSFSYHRNSAIKAGVSAIFDRILSELVYMKRLNDRRELSTLKAIIILYNPDI 420  
 DB 361 POOLFANOSFSYHRNSAIKAGVSAIFDRILSELVYMKRLNDRRELSTLKAIIILYNPDI 420  
 QY 421 RKIKRSRATIEMCREKVYACLDKHCLEHPGDDGRFAQLILRLPALRSISLKCQDHLFLRR 480  
 DB 421 RKIKRSRATIEMCREKVYACLDKHCLEHPGDDGRFAQLILRLPALRSISLKCQDHLFLRR 480  
 QY 481 ITSDRPLEELFLEQLEAPPPGLAMKLR 508  
 DB 481 ITSDRPLEELFLEQLEAPPPGLAMKLR 508  
 RESULT 10  
 ADY61101  
 ID ADY61101 standard; protein; 508 AA.  
 AC ADY61101;  
 XX  
 DT 19-MAY-2005 (first entry)  
 XX  
 DE D melanogaster ultraspiracle (USP) K315W mutant protein #5.  
 XX  
 KW protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
 KM ultraspiracle; USP; mutant; mutein.  
 XX  
 OS Drosophila melanogaster.  
 OS Synthetic.  
 XX  
 FH Key Location/Qualifiers  
 FT Misc-difference 315 /note="Wild-type Lys replaced by Trp"  
 XX  
 PN US2005054569-A1.  
 XX  
 PD 10-MAR-2005.  
 XX  
 PF 24-NOV-2003; 2003US-00719024.  
 XX  
 PR 22-NOV-2002; 2002US-0428282P.  
 XX  
 PA (JONE/) JONES G.  
 PA (JONE/) JONES D.  
 XX  
 PI Jones G, Jones D;  
 XX  
 DR WPI: 2005-221953/23.  
 XX  
 PT New mutant hormone receptor nucleic acids useful in the fields of drug  
 PT discovery and pest control, in particular for identifying chemical  
 PT compounds in activating or blocking particular hormone-dependent pathways  
 PT in various organisms.  
 XX  
 PS Claim 5; Page; 35pp; English.  
 XX  
 CC This invention relates to novel mutant nuclear hormone receptors and the  
 CC DNA sequences which encode them. The invention may be useful for the  
 CC development of compounds with a pesticide activity acting as hormone  
 CC receptor agonists or antagonists. The methods and compositions of the  
 CC present invention are useful in the fields of drug discovery and pest  
 CC control, in particular for providing biochemical tools and assays to  
 CC identify ligands of nuclear hormone receptors and identifying a pest

CC control agent. The present sequence is that of a mutant form of the D  
CC melanogaster ultraspiracle (USP) protein which represents a novel mutant  
CC nuclear hormone receptors of the invention. Note: The present sequence  
CC was created by the indexer using information given in the claims of the  
CC specification.

XX Sequence 508 AA;

Query Match 99.7%; Score 2658; DB 9; Length 508;

Best Local Similarity 99.8%; Pred. No. 6.6e-201; Mismatches 1; Indels 0; Gaps 0;

Matches 507; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MDNCQDASFRLSHIKEVKPDISQNDNSNSFSFPAKESVPPFMQAMSVHVLPGNSA 60  
DB 1 MDNCQDASFRLSHIKEVKPDISQNDNSNSFSFPAKESVPPFMQAMSVHVLPGNSA 60  
QY 61 SSNNNSAGDAQMAQAPNSAGSAAAQVQYPPNHPPLSGSKYGLCSICGDRASGKHYGYS 120  
DB 61 SSNNNSAGDAQMAQAPNSAGSAAAQVQYPPNHPPLSGSKYGLCSICGDRASGKHYGYS 120  
QY 121 CEGCKGFPRKTVRKDLTYACRENRCIIDKQRNRQYCRVOKCLTCGMRKRAVQERQR 180  
DB 121 CEGCKGFPRKTVRKDLTYACRENRCIIDKQRNRQYCRVOKCLTCGMRKRAVQERQR 180  
QY 181 GARNAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVRDSI 240  
DB 181 GARNAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVRDSI 240  
QY 241 ERIIEAQRARTQCGDRALTLRVGPYSTVQPDYKGAVALCOVYNKOLFQWVEYARAMP 300  
DB 241 ERIIEAQRARTQCGDRALTLRVGPYSTVQPDYKGAVALCOVYNKOLFQWVEYARAMP 300  
QY 301 HPAQVPLDDQVTLKAAWIELLIANVAMCSIVSLDDGAGGGGGLGHDGSPERRSPGLQ 360  
DB 301 HPAQVPLDDQVTLKAAWIELLIANVAMCSIVSLDDGAGGGGGLGHDGSPERRSPGLQ 360  
QY 361 POOLFINSFSYHNSAIKAGVSAIFDRILSELVYMKRLNDRRELSCLAIIILYNPDI 420  
DB 361 POOLFINSFSYHNSAIKAGVSAIFDRILSELVYMKRLNDRRELSCLAIIILYNPDI 420  
QY 421 RGIKSRRAIEMCREKRVYACLDHCRLEHPGDDGRFAQLILRLPALRSISLKCQDHLFLFR 480  
DB 421 RGIKSRRAIEMCREKRVYACLDHCRLEHPGDDGRFAQLILRLPALRSISLKCQDHLFLFR 480  
QY 481 ITSDRPLEELFLQLEAPPPLGLAMKLE 508  
DB 481 ITSDRPLEELFLQLEAPPPLGLAMKLE 508

RESULT 11

ADY61109  
ID ADY61109 standard; protein; 508 AA.

XX ADY61109;

XX 19-MAY-2005 (first entry)

XX D melanogaster ultraspiracle (USP) F302R mutant protein #13.

XX protein engineering; hormone; pesticide; pharmaceutical; plant pest;

XX ultraspiracle; USP; mutant; mutein.

XX Drosophila melanogaster.

XX Synthetic.

XX Key Location/Qualifiers

XX Misc-difference 302

XX /note= "Wild-type Phe replaced by Arg"

XX US2005054569-A1.

XX 10-MAR-2005.

PF 24-NOV-2003; 2003US-00719024.

XX 22-NOV-2002; 2002US-0428282P.

XX (JONE/) JONES G.

XX (JONE/) JONES D.

XX Jones G, Jones D;

XX WPI; 2005-221953/23.

PF New mutant hormone receptor nucleic acids useful in the fields of drug

PF discovery and pest control, in particular for identifying chemical

PF compounds in activating or blocking particular hormone-dependent pathways

PF in various organisms.

PF Claim 17; Page; 35pp; English.

CC This invention relates to novel mutant nuclear hormone receptors and the  
CC DNA sequences which encode them. The invention may be useful for the  
CC development of compounds with a pesticide activity acting as hormone  
CC receptor agonists or antagonists. The methods and compositions of the  
CC present invention are useful in the fields of drug discovery and pest  
CC control, in particular for providing biochemical tools and assays to  
CC identify ligands of nuclear hormone receptors and identifying a pest  
CC control agent. The present sequence is that of a mutant form of the D  
CC melanogaster ultraspiracle (USP) protein which represents a novel mutant  
CC nuclear hormone receptors of the invention. Note: The present sequence  
CC was created by the indexer using information given in the claims of the  
CC specification.

XX Sequence 508 AA;

Query Match 99.7%; Score 2657; DB 9; Length 508;

Best Local Similarity 99.8%; Pred. No. 7.9e-201; Mismatches 1; Indels 0; Gaps 0;

Matches 507; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MDNCQDASFRLSHIKEVKPDISQNDNSNSFSFPAKESVPPFMQAMSVHVLPGNSA 60  
DB 1 MDNCQDASFRLSHIKEVKPDISQNDNSNSFSFPAKESVPPFMQAMSVHVLPGNSA 60  
QY 61 SSNNNSAGDAQMAQAPNSAGSAAAQVQYPPNHPPLSGSKYGLCSICGDRASGKHYGYS 120  
DB 61 SSNNNSAGDAQMAQAPNSAGSAAAQVQYPPNHPPLSGSKYGLCSICGDRASGKHYGYS 120  
QY 121 CEGCKGFPRKTVRKDLTYACRENRCIIDKQRNRQYCRVOKCLTCGMRKRAVQERQR 180  
DB 121 CEGCKGFPRKTVRKDLTYACRENRCIIDKQRNRQYCRVOKCLTCGMRKRAVQERQR 180  
QY 181 GARNAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVRDSI 240  
DB 181 GARNAGRLSASGGSSGPGSVGSSSQGGGGGSGVSGMGSNGSDDFMTNSVRDSI 240  
QY 241 ERIIEAQRARTQCGDRALTLRVGPYSTVQPDYKGAVALCOVYNKOLFQWVEYARAMP 300  
DB 241 ERIIEAQRARTQCGDRALTLRVGPYSTVQPDYKGAVALCOVYNKOLFQWVEYARAMP 300  
QY 301 HPAQVPLDDQVTLKAAWIELLIANVAMCSIVSLDDGAGGGGGLGHDGSPERRSPGLQ 360  
DB 301 HPAQVPLDDQVTLKAAWIELLIANVAMCSIVSLDDGAGGGGGLGHDGSPERRSPGLQ 360  
QY 361 POOLFINSFSYHNSAIKAGVSAIFDRILSELVYMKRLNDRRELSCLAIIILYNPDI 420  
DB 361 POOLFINSFSYHNSAIKAGVSAIFDRILSELVYMKRLNDRRELSCLAIIILYNPDI 420  
QY 421 RGIKSRRAIEMCREKRVYACLDHCRLEHPGDDGRFAQLILRLPALRSISLKCQDHLFLFR 480  
DB 421 RGIKSRRAIEMCREKRVYACLDHCRLEHPGDDGRFAQLILRLPALRSISLKCQDHLFLFR 480  
QY 481 ITSDRPLEELFLQLEAPPPLGLAMKLE 508  
DB 481 ITSDRPLEELFLQLEAPPPLGLAMKLE 508

RESULT 12  
ADY61099  
ID ADY61099 standard; protein; 508 AA.  
XX  
AC ADY61099;  
DT 19-MAY-2005 (first entry)  
DE D melanogaster ultraspiracle (USP) F477M/F479W mutant protein #3.  
XX  
KM protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
XX ultraspiracle; USP; mutant; mutein.  
XX  
OS Drosophila melanogaster.  
XX Synthetic.  
XX  
FH Key Location/Qualifiers  
FT Misc-difference 477 /note= "Wild-type Phe replaced by Trp"  
FT Misc-difference 479 /note= "Wild-type Phe replaced by Trp"  
FT FT  
XX  
PN US2005054569-A1.  
XX  
PD 10-MAR-2005.  
XX  
PF 24-NOV-2003; 2003US-00719024.  
XX  
PR 22-NOV-2002; 2002US-0428282P.  
XX  
PA (JONE/) JONES G.  
XX (JONE/) JONES D.  
XX  
PI Jones G, Jones D;  
XX  
PI WPI; 2005-221953/23.  
XX  
DR New mutant hormone receptor nucleic acids useful in the fields of drug  
XX discovery and pest control, in particular for identifying chemical  
XX compounds in activating or blocking particular hormone-dependent pathways  
XX in various organisms.  
XX  
PS Claim 1; Page: 35pp; English.  
XX  
XX This invention relates to novel mutant nuclear hormone receptors and the  
XX DNA sequences which encode them. The invention may be useful for the  
XX development of compounds with a pesticide activity acting as hormone  
XX receptor agonists or antagonists. The methods and compositions of the  
XX present invention are useful in the fields of drug discovery and pest  
XX control, in particular for providing biochemical tools and assays to  
XX identify ligands of nuclear hormone receptors and identifying a pest  
XX control agent. The present sequence is that of a mutant form of the D  
XX melanogaster ultraspiracle (USP) protein which represents a novel mutant  
XX nuclear hormone receptors of the invention. Note: The present sequence  
XX was created by the indexer using information given in the claims of the  
XX specification.  
XX  
SQ Sequence 508 AA;  
Query Match 99.6%; Score 2656; DB 9; Length 508;  
Best Local Similarity 99.6%; Pred. No. 9.5e-201;  
Matches 506; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 121 CEGCKGFFKRTVRKDLTYACRENRCIIDKQRNRCQYCRYOXKCLTCGKREAVQEROR 180  
QY 181 GARNAGRLSASGGSSGPGSVGSSSGCGGGGGVSGMGSGNSDDPMTNSVSRDEI 240  
DB 181 GARNAGRLSASGGSSGPGSVGSSSGCGGGGGVSGMGSGNSDDPMTNSVSRDEI 240  
QY 241 ERIIEAQRATFQCDDRALTFRLVGPSTVQPDYGAVALCQVYNKOLFQVRYARMP 300  
DB 241 ERIIEAQRATFQCDDRALTFRLVGPSTVQPDYGAVALCQVYNKOLFQVRYARMP 300  
QY 301 HFAQVPLDDQVILLKAAWIELLIANVAMCSIVSLDDGAGGGGGIGHDGFFERSPGIQ 360  
DB 301 HFAQVPLDDQVILLKAAWIELLIANVAMCSIVSLDDGAGGGGGIGHDGFFERSPGIQ 360  
QY 361 POQLFNLGFSYHRNSAIKAGVSAIFDRIISLSTVYKMRNLNDRRELSTKXIIILNPI 420  
DB 361 POQLFNLGFSYHRNSAIKAGVSAIFDRIISLSTVYKMRNLNDRRELSTKXIIILNPI 420  
QY 421 RGIKSRATIEMCREKYVACLDHCRLEHPGDDGFAQLLRPALRSTSLKCDHLFLPR 480  
DB 421 RGIKSRATIEMCREKYVACLDHCRLEHPGDDGFAQLLRPALRSTSLKCDHLFLPR 480  
QY 481 ITSDRPLEELFLEQLAAPPPLANKLE 508  
DB 481 ITSDRPLEELFLEQLAAPPPLANKLE 508  
RESULT 13  
ADY61103  
ID ADY61103 standard; protein; 508 AA.  
XX  
AC ADY61103;  
DT 19-MAY-2005 (first entry)  
DE D melanogaster ultraspiracle (USP) W328F mutant protein #7.  
XX  
KM protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
XX ultraspiracle; USP; mutant; mutein.  
XX  
OS Drosophila melanogaster.  
XX Synthetic.  
XX  
FH Key Location/Qualifiers  
FT Misc-difference 328 /note= "Wild-type Trp replaced by Phe"  
FT FT  
XX  
PN US2005054569-A1.  
XX  
PD 10-MAR-2005.  
XX  
PF 24-NOV-2003; 2003US-00719024.  
XX  
PR 22-NOV-2002; 2002US-0428282P.  
XX  
PA (JONE/) JONES G.  
XX (JONE/) JONES D.  
XX  
PI Jones G, Jones D;  
XX  
PI WPI; 2005-221953/23.  
XX  
DR New mutant hormone receptor nucleic acids useful in the fields of drug  
XX discovery and pest control, in particular for identifying chemical  
XX compounds in activating or blocking particular hormone-dependent pathways  
XX in various organisms.  
XX  
PS Claim 7; Page: 35pp; English.  
XX  
XX This invention relates to novel mutant nuclear hormone receptors and the  
XX DNA sequences which encode them. The invention may be useful for the  
XX development of compounds with a pesticide activity acting as hormone

CC receptor agonists or antagonists. The methods and compositions of the  
 CC present invention are useful in the fields of drug discovery and pest  
 CC control, in particular for providing biochemical tools and assays to  
 CC identify ligands of nuclear hormone receptors and identifying a pest  
 CC control agent. The present sequence is that of a mutant form of the D  
 CC melanogaster ultraaspiracle (USP) protein which represents a novel mutant  
 CC nuclear hormone receptors of the invention. Note: The present sequence  
 CC was created by the indexer using information given in the claims of the  
 CC specification.

CC  
 XX  
 SQ Sequence 508 AA;

Query Match 99.6%; Score 2656; DB 9; Length 508;  
 Best Local Similarity 99.8%; Pred. No. 9.5e-201;  
 Matches 507; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 MDNCQDASFLSHKEVKPDISQLDNNSSSPKAESEPPFMQMSMVAHVLPGNSA 60  
 DB 1 MDNCQDASFLSHKEVKPDISQLDNNSSSPKAESEPPFMQMSMVAHVLPGNSA 60  
 QY 61 SSNNNSAGDAOMAAPNSAGSSAAAAYOOQYPPNHPLSGSKHLCSICGDRASGKHGYYS 120  
 DB 61 SSNNNSAGDAOMAAPNSAGSSAAAAYOOQYPPNHPLSGSKHLCSICGDRASGKHGYYS 120  
 QY 121 CEGCKGFPKRTVRKDLTYACRENRCIIDKQRNRCQYCRYOKCLTCGKREAVOEERQ 180  
 DB 121 CEGCKGFPKRTVRKDLTYACRENRCIIDKQRNRCQYCRYOKCLTCGKREAVOEERQ 180  
 QY 181 GARNNAGRLSASGGSSGPGSVGGSSSQGGGGGSGVSGMGSGNSDDPMNTSVSRDPSI 240  
 DB 181 GARNNAGRLSASGGSSGPGSVGGSSSQGGGGGSGVSGMGSGNSDDPMNTSVSRDPSI 240  
 QY 241 ERIIEABQRAETOCGDRALTFRLVGPYSTVOPDYKGAVSALCOVYNKOLFQWVEYARAMP 300  
 DB 241 ERIIEABQRAETOCGDRALTFRLVGPYSTVOPDYKGAVSALCOVYNKOLFQWVEYARAMP 300  
 QY 301 HFAQVPLDDQVITLKAAMIETLLIANVAMCSIVSLDDGAGGGGGGLGHDGSEFERRSPGLQ 360  
 DB 301 HFAQVPLDDQVITLKAAMIETLLIANVAMCSIVSLDDGAGGGGGGLGHDGSEFERRSPGLQ 360  
 QY 361 POOLFLNOSFSYHRNSAIKAGVSAIPDRILSELVYKMRKLNDRRELSCLEKAIILYNPDI 420  
 DB 361 POOLFLNOSFSYHRNSAIKAGVSAIPDRILSELVYKMRKLNDRRELSCLEKAIILYNPDI 420  
 QY 421 RGIKSRRAEIMCREKVVYACLDHECRLEHGGDGRFAOILLRLPALRSISLKCQDHLFLFR 480  
 DB 421 RGIKSRRAEIMCREKVVYACLDHECRLEHGGDGRFAOILLRLPALRSISLKCQDHLFLFR 480  
 QY 481 ITSDBRPLEBELFLEOLEAPPFPGIANKLE 508  
 DB 481 ITSDBRPLEBELFLEOLEAPPFPGIANKLE 508

RESULT 14  
 ADY61102  
 ID ADY61102 standard; protein; 508 AA.

AC ADY61102;  
 DT 19-MAY-2005 (first entry)  
 DE D melanogaster ultraaspiracle (USP) W318F mutant protein #6.  
 XX protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
 KM ultraaspiracle; USP; mutant; muten.  
 XX Drosophila melanogaster.  
 OS Synthetic.

XX Key location/Qualifiers  
 FT Misc-difference 318 /note= "Wild-type Trp replaced by Phe"  
 XX

EN US2005054569-A1.  
 XX 10-MAR-2005.  
 XX 24-NOV-2003; 2003US-00719024.  
 XX 22-NOV-2002; 2002US-0428282P.  
 PA (JONE/) JONES G.  
 PA (JONE/) JONES D.  
 FI Jones G, Jones D;  
 DR WPI; 2005-221953/23.  
 PT New mutant hormone receptor nucleic acids useful in the fields of drug  
 PT discovery and pest control, in particular for identifying chemical  
 PT compounds in activating or blocking particular hormone-dependent pathways  
 in various organisms.

Claim 6; Page; 35pp; English.

This invention relates to novel mutant nuclear hormone receptors and the  
 CC DNA sequences which encode them. The invention may be useful for the  
 CC development of compounds with a pesticide activity acting as hormone  
 CC receptor agonists or antagonists. The methods and compositions of the  
 CC present invention are useful in the fields of drug discovery and pest  
 CC control, in particular for providing biochemical tools and assays to  
 CC identify ligands of nuclear hormone receptors and identifying a pest  
 CC control agent. The present sequence is that of a mutant form of the D  
 CC melanogaster ultraaspiracle (USP) protein which represents a novel mutant  
 CC nuclear hormone receptors of the invention. Note: The present sequence  
 CC was created by the indexer using information given in the claims of the  
 CC specification.

SQ Sequence 508 AA;

Query Match 99.6%; Score 2656; DB 9; Length 508;  
 Best Local Similarity 99.8%; Pred. No. 9.5e-201;  
 Matches 507; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 MDNCQDASFLSHKEVKPDISQLDNNSSSPKAESEPPFMQMSMVAHVLPGNSA 60  
 DB 1 MDNCQDASFLSHKEVKPDISQLDNNSSSPKAESEPPFMQMSMVAHVLPGNSA 60  
 QY 61 SSNNNSAGDAOMAAPNSAGSSAAAAYOOQYPPNHPLSGSKHLCSICGDRASGKHGYYS 120  
 DB 61 SSNNNSAGDAOMAAPNSAGSSAAAAYOOQYPPNHPLSGSKHLCSICGDRASGKHGYYS 120  
 QY 121 CEGCKGFPKRTVRKDLTYACRENRCIIDKQRNRCQYCRYOKCLTCGKREAVOEERQ 180  
 DB 121 CEGCKGFPKRTVRKDLTYACRENRCIIDKQRNRCQYCRYOKCLTCGKREAVOEERQ 180  
 QY 181 GARNNAGRLSASGGSSGPGSVGGSSSQGGGGGSGVSGMGSGNSDDPMNTSVSRDPSI 240  
 DB 181 GARNNAGRLSASGGSSGPGSVGGSSSQGGGGGSGVSGMGSGNSDDPMNTSVSRDPSI 240  
 QY 241 ERIIEABQRAETOCGDRALTFRLVGPYSTVOPDYKGAVSALCOVYNKOLFQWVEYARAMP 300  
 DB 241 ERIIEABQRAETOCGDRALTFRLVGPYSTVOPDYKGAVSALCOVYNKOLFQWVEYARAMP 300  
 QY 301 HFAQVPLDDQVITLKAAMIETLLIANVAMCSIVSLDDGAGGGGGGLGHDGSEFERRSPGLQ 360  
 DB 301 HFAQVPLDDQVITLKAAMIETLLIANVAMCSIVSLDDGAGGGGGGLGHDGSEFERRSPGLQ 360  
 QY 361 POOLFLNOSFSYHRNSAIKAGVSAIPDRILSELVYKMRKLNDRRELSCLEKAIILYNPDI 420  
 DB 361 POOLFLNOSFSYHRNSAIKAGVSAIPDRILSELVYKMRKLNDRRELSCLEKAIILYNPDI 420  
 QY 421 RGIKSRRAEIMCREKVVYACLDHECRLEHGGDGRFAOILLRLPALRSISLKCQDHLFLFR 480  
 DB 421 RGIKSRRAEIMCREKVVYACLDHECRLEHGGDGRFAOILLRLPALRSISLKCQDHLFLFR 480



QY 481 ITSDBPLEBFLFQLBAPPPGLAMKLE 508  
DB 481 ITSDBPLEBFLFQLBAPPPGLAMKLE 508

RESULT 15  
ID ADY61113 standard; protein; 508 AA.  
ADY61113;  
AC ADY61113;  
XX  
DT 19-MAY-2005 (first entry)  
XX  
DE D melanogaster ultraspiracle (USP) Q288A/L366A mutant protein #17.  
XX  
KW protein engineering; hormone; pesticide; pharmaceutical; plant pest;  
XX ultraspiracle; USP; mutant; mutain.  
XX  
OS Drosophila melanogaster.  
OS Synthetic.  
XX  
FH Key Location/Qualifiers  
FT Misc-difference 288 /note= "Wild-type Gln replaced by Ala"  
FT Misc-difference 366 /note= "Wild-type Leu replaced by Ala"  
FT  
XX  
PN US2005054569-A1.  
XX  
PD 10-MAR-2005.  
XX  
PF 24-NOV-2003; 2003US-00719024.  
XX  
PR 22-NOV-2002; 2002US-0428282P.  
XX  
PA (JONE/) JONES G.  
XX (JONE/) JONES D.  
PI Jones G, Jones D;  
XX  
DR WPI; 2005-221953/23.  
XX  
PT New mutant hormone receptor nucleic acids useful in the fields of drug  
PT discovery and pest control, in particular for identifying chemical  
PT compounds in activating or blocking particular hormone-dependent pathways  
PT in various organisms.  
XX  
PS Claim 21; Page; 35pp; English.  
XX  
CC This invention relates to novel mutant nuclear hormone receptors and the  
CC DNA sequences which encode them. The invention may be useful for the  
CC development of compounds with a pesticide activity acting as hormone  
CC receptor agonists or antagonists. The methods and compositions of the  
CC present invention are useful in the fields of drug discovery and pest  
CC control, in particular for providing biochemical tools and assays to  
CC identify ligands of nuclear hormone receptors and identifying a pest  
CC control agent. The present sequence is that of a mutant form of the D  
CC melanogaster ultraspiracle (USP) protein which represents a novel mutant  
CC nuclear hormone receptors of the invention. Note: The present sequence  
CC was created by the indexer using information given in the claims of the  
CC specification.  
XX  
SQ Sequence 508 AA;

Query Match 99.6%; Score 2655; DB 9; Length 508;  
Best Local Similarity 99.6%; Pred. No. 1.1e-200;  
Matches 506; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MNCNCODASFRLSHIKEEYKPDISQNDSSNSFSPKASPPVFMQAMSMVHVLPSNSA 60  
DB 1 MNCNCODASFRLSHIKEEYKPDISQNDSSNSFSPKASPPVFMQAMSMVHVLPSNSA 60  
QY 61 SSNNNSAGDAQMAQAPNSAGSAAAAVQOQYPPNHPLSGSKHLCSICGDRASGKHGYVS 120

DB 61 SSNNNSAGDAQMAQAPNSAGSAAAAVQOQYPPNHPLSGSKHLCSICGDRASGKHGYVS 120  
QY 121 CEGCKGFFRRTYRKDLYACRENRNCITDKQRNRCQYGRYQKCLTGAKREAVQBERQR 180  
DB 121 CEGCKGFFRRTYRKDLYACRENRNCITDKQRNRCQYGRYQKCLTGAKREAVQBERQR 180  
QY 181 GARNAGRLSASGSGSSGPGSVGSSQCGGGGGGVSGMGSGNGSDDPFMTNSVSRDFSI 240  
DB 181 GARNAGRLSASGSGSSGPGSVGSSQCGGGGGGVSGMGSGNGSDDPFMTNSVSRDFSI 240  
QY 241 BRITIEAORAEITQCGDRALTLFVRVGPYSTVOPDYKAVSALCQVVKOLFQWVEYARMP 300  
DB 241 BRITIEAORAEITQCGDRALTLFVRVGPYSTVOPDYKAVSALCQVVKOLFQWVEYARMP 300  
QY 301 HFAQVPLDQVILTKAMTELLIANVACSTYSLDDGAGGGGGTGHDSFERRSPGLQ 360  
DB 301 HFAQVPLDQVILTKAMTELLIANVACSTYSLDDGAGGGGGTGHDSFERRSPGLQ 360  
QY 361 POOLFANOSFYHRNSAIKAGVSAIPDRILSELVGMKRLNIDRRELSCIKATILYNPDI 420  
DB 361 POOLFANOSFYHRNSAIKAGVSAIPDRILSELVGMKRLNIDRRELSCIKATILYNPDI 420  
QY 421 RGIKSRAEIEMCREKVTACLDHCRLEHPGDGRFAQLILRLPALRSISLKCQDHLFLPR 480  
DB 421 RGIKSRAEIEMCREKVTACLDHCRLEHPGDGRFAQLILRLPALRSISLKCQDHLFLPR 480  
QY 481 ITSDBPLEBFLFQLBAPPPGLAMKLE 508  
DB 481 ITSDBPLEBFLFQLBAPPPGLAMKLE 508

Search completed: May 20, 2006, 13:49:44  
Job time : 198 secs

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